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THE MYSORE UNIVERSITY MAGAZINE

EDITED BY

A. R. WADIA, B.A. (CANTAB.) BAR-AT-LAW

VOL. VII—1923

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THE MYSORE UNIVERSITY MAGAZINE

March 1923

EDITORIAL.

A WORD OF THANKS.—On behalf of the numerous readers of this magazine it is our pleasant duty to record our thanks to Mr. J. C. Rollo for his editorship of this journal. Ever since Mr. Denham's departure from India, the editorial duties had fallen to the lot of Mr. Rollo, and none can deny that in the face of many difficulties he did his best to keep it alive during a period of marked depression. His absence of six months from India is a loss to this magazine particularly and the Maharaja's College in general, but we cannot grudge him a well-earned holiday, spent midst his people and on his native soil. Those who have been in the West know what a fresh lease of vigour a stay there hardly ever fails to give, and we have no doubt that on his return Mr. Rollo will be all the more able to shoulder the editorial responsibilities once again. While thanking and expressing our good wishes for Mr. Rollo, we cannot omit to mention Mrs. Rollo, who in an unostentatious fashion has done a good deal for this journal. The initials "G. M. R." have been fairly familiar to our readers, and it would be unpardonably ungracious not to make a fitting acknowledgment of her valuable services on this occasion. We wish them both a fine holiday and a speedy return to their activities in Mysore.

* * * * *

OURSELF.—We entered on our editorial duties only in April when the vacation began, and were confronted with the task of bringing out the March issue as soon as possible. April is not an auspicious time for getting any help from those, from whom we can rightfully demand help, for our professors and assistant professors alike would be busy valuing examination papers. In spite of this great difficulty we have hastened the publication of this issue to the best of our ability so that the July issue may

be punctually out. We have to thank those who have already promised us articles, and those too, who, we feel sure, will not fail to answer our call for assistance. So far as the present issue is concerned, we are particularly grateful to Mr. Sultan Mohiyuddin for his original contribution in a new field of Experimental Psychology. He is one of the few Indians who have specialised in this new branch of scientific activity, and an article coming from his pen will be specially welcomed by our readers, especially on the eve of a new probable development in our university: the introduction of Experimental Psychology. The subject has justified its existence, as the industrial and the war record of expert experimental psychologists in Europe and America has amply testified.

In the last issue Mr. Rollo made it clear that the editorials express the views of the editor himself. This will sufficiently explain any difference that the readers may detect in the views expressed by the late editor and the present editor.

* * * *

THE SENATE MEETING.—The Senate meeting that was held in the hall of the Maharaja's College on the 17th March was memorable in many ways and is not likely to be easily forgotten. It was full of surprises, but we trust also full of lessons to all interested in the working of our University. The agenda was heavy and none expected that a single day would suffice. But it may have come as a surprise to most members of the Senate that practically the whole sitting should have been devoted to a discussion of the budget. In fairness to the Senate it has to be admitted that the members were severely handicapped by the piecemeal fashion in which the budget proposals were furnished to the Fellows. The revised copy of the budget came to the hands of Bangalore members almost at the time when they were leaving for Mysore to attend the Senate meeting, and it was only this revised copy that contained many new provisions, which finally proved very contentious. To make matters worse the discussion of the budget was almost the first to be taken up, so that the Senate was faced with the awkward dilemma of passing the budget and thus approving the new items of expenditure without any direct discussion of them, or of negativing these provisions and thus rendering a discussion of the substantive propositions, placed later on the agenda, quite futile. The Senate, or at least a majority of it, preferred to take the former course and for the time being at least, wisely or wrongly, has hindered the development of the University.

Right through the discussion it was clear that the Senate was in a severely critical mood, and at no stage showed any signs of willingness to be dictated to by the University Council. Perhaps it was as well for the

future of the University that the Senate should have insisted on its right to be informed, to discuss and to reject, for the spirit of freedom is a precious possession, and especially sacred within the precincts of a university, and it is only through this spirit of freedom that the integrity and independence of a corporate body can be preserved. The example of the financial mess in which the Calcutta University was recently involved is far too recent not to serve as an eloquent warning against a senate too servile to vote independently and too weak to resist the pressure of a master-personality. The Senate vote will have served its purpose, if in future steps are taken to see that the budget is framed in its final form at least a fortnight before the Senate is to meet and that it is given full and free opportunities to face the items of new expenditure on their own merit instead of being hustled through in the form of budget provisions.

* * * * *

THE OTHER SIDE.—What we have so far said, however, represents only one side of the picture, but there is another, and it is this, that however justifiable the action of the Senate may be considered to have been under the peculiar circumstances of the budget debate, to which we have already referred, it can hardly be defended on purely educational grounds. We have had one more proof, if any more were needed, that in technical matters a small select body like a Board of Studies or the University Council is apt to think more soundly than a large heterogeneous body like the Senate. Education, in India particularly, has been considered so easy a topic that every graduate—and perhaps even an undergraduate—thinks himself qualified to sit in judgment on it. It has had to put up with an amount of dictation at the hands of non-educationists, which in any other sphere would not be tolerated for half a second. Fancy the lay public laying down the organisation of a hospital or a court of justice! Doctors and lawyers alike would be the first to brand such intrusion as an impertinence, and yet the organisation of a university in India is considered to be a fit subject for non-educationists to make themselves heard on, and even be in a majority in educational bodies. Of course the opinion of the laity in any sphere has its own worth and must be given its due weight. It prevents the formation of narrow grooves, and a current of fresh criticism is always a guarantee against any institution getting hide-bound. Yet making allowance for this, in India particularly in matters educational non-educationists have had a weight out of all proportion to their intrinsic worth.

The budget provided for three new developments: (1) the institution of an M. A. Degree course in Ancient Indian History and Culture;

(2) the introduction of Economics, especially on its statistical side, as an optional subject at the Central College; (3) the foundation of a Law College. The last provision was in conformity with the resolution of the Senate passed in last November. The first two were really fresh proposals, which in their substantive form have not yet been discussed by the Senate at all, but which deserve a much more careful consideration than was vouchsafed to them at the last Senate meeting. It would not be time misspent, if we linger a little on the considerations which prompted these proposals.

* * * * *

ANCIENT INDIAN HISTORY AND CULTURE.—The adverse vote of the Senate against this course can hardly be reconciled with the most vociferous pronouncements of many Indian publicists in favour of encouraging Indian culture. It ought to be really accepted as a dogma—by no means an unreasoned one—that the first duty of an Indian University is to foster the study of its priceless lore, often found buried in the dust of centuries. So far the best work in the unravelment of India's glorious past has been carried on by foreign scholars in foreign universities. So long as the universities in India were dominated by the ideal of passing examinations as a gateway to securing appointments, it fell outside their province to attempt any cultural work, which had no bread-and-butter aspect. But now that the Calcutta University has broken new ground—even though it be at a break-neck speed—and the Mysore University at its inception held out hopes of opening new avenues for university activity, it stands to reason that this university should not lose any opportunity of furthering the sacred cause of Indian culture. Now that Archaeology under the fostering direction of a scholar of European reputation has become a department of our university, a linking up of it with the study of Ancient Indian History is a very palpable line of advance and the Senate that approved of the former was logically bound to approve of the latter. To put it on a par with Egyptology, as one Fellow actually did, is to miss the very essence of the proposal. Egyptology may be a luxury which a struggling Indian university cannot afford and need not afford, but which university can brush aside the culture of its own country and yet can face the world as an up-to-date university?

Probably there was something which weighed with the members who voted against the course, but as it was unexpressed it could not be argued against. But there were two considerations, which if not explicitly stated, were very broadly hinted at. The one was that if nothing was done to institute a medical faculty and a degree in teaching in spite of the resolutions of the Senate, why should any money be spent on a new

course in ancient culture? Now granting that the medical faculty is a great necessity, it must also be granted that it is very expensive. If our university is to organise medical training, let it do so efficiently or not at all, for an ill-equipped medical college will produce ill-equipped graduates, and they cannot be allowed to experiment with the lives of the public. So long as the financial position of the university is not put on a very stable foundation, it would be hazardous to have a medical college, though we sincerely trust that we shall not have to wait indefinitely for this happy inauguration. The teaching degree is a much more possible proposition, and we most sincerely regret that nothing has yet been done to satisfy a long-felt want. But can the cause of teaching in our university be furthered by an open hostility to all other developments? Was there any reason to believe that the amount saved by negativing ancient culture will be spent on a teaching course? As things stand, the teaching course is as far or as near as it ever was, and the university has lost a chance—let us hope only temporarily—to do its duty by the past of its country.

The other consideration was that far too much is being spent on Maharaja's College. It is difficult to believe that such a consideration should have been trotted out by some of our fellow-professors of a sister college. Even in a political chamber such ill-concealed jealousy might have evoked surprise. On the floor of an educational institution such jealousy was astoundingly deplorable. It would be an evil day for any university when one college struggles to keep down another, and this too without in any way benefitting itself. But the jealousy, bad in itself, was really groundless. The Maharaja's College has suffered much during the last three years, and its staff has been weakened to the extent even of crippling its efficiency. The Principal of the Maharaja's College in a brief but weighty pronouncement made this quite clear, which ordinarily should have sufficed to nip in the bud a display of petulant jealousy. Such a feeling does not augur well for the future, for such a cheap game can be played by more than one party. But the professors of the humanities may be trusted to foster the interests of science as much as of arts.

* * * * *

ECONOMICS IN THE CENTRAL COLLEGE.—The Central College is pre-eminently a science college, and *prima facie* economics as an optional in a science college does not sound quite satisfactory. Yet surely the Principal of the College and the University Council knew what they were about. The former even defended the proposal with great cogency, and his was a speech which was listened to by the house with a patient attention markedly refreshing. But some of his own

colleagues voted against him and the proposal was turned down. One is tempted to ask: with what justification? The facts of the case are fairly simple. When the Central College was originally set apart for science, it could hardly have been foreseen that in the space of seven short years the number of science candidates would be in the proportion of three to two to the arts candidates at the Entrance Examination. Making every allowance for the heavy percentage of failures in physics every year, the rush of new candidates will shortly be nearly double the number for whom accommodation can be afforded. Any rigorous attempt made to pass roughly the number that could be accommodated would be palpably dishonest and unjust. A refusal to admit more than could be accommodated would evoke popular discontent and would furnish ample material to the daily press. And yet the problem is real and has to be faced. One way out of the difficulty is to introduce a new subject which would take off the strain on laboratory accommodation. And no better subject could be suggested to meet this end than economics. For the most recent developments in this subject are so mathematical in character as to require a knowledge of mathematics which only the Central College is in a position to offer. It can hardly be contended that the proposal is not without its weak side. It may be that students more keen on physics and chemistry, may simply be given the Hobson's choice of taking up economics or be denied a seat in the college. But this contingency is not really so ruthless as it may at first sight appear. The large majority of the passes hover on the border line between a scraping-through and a definite failure, and if such people are persuaded to take some other subject than physics or chemistry, it can hardly be contended that they are treated unfairly. Frankly the proposal of the University Council was a compromise, necessitated by the urgency of the situation, but by no means a despicable compromise. There is nothing inherently wicked about compromises; after all even the British constitution is the result of recurring compromises.

Some members of the Senate did not fail to suggest alternatives. One was to provide additional accommodation. But the question of cost and time was too insignificant to be seriously considered! A science laboratory, or rather laboratories, means lakhs both for building and equipment. And even if the Government were so extraordinarily generous as to furnish this amount, where is the magician that would build and equip these laboratories in the space of three months? Another alternative suggested was to introduce all the arts subjects in the Central College, a revolutionary suggestion made on the spur of the moment without a thought devoted to means and ways. It might as well be argued that no man should touch bread till he has had his fill of cakes!

In the meantime in spite of grave warnings from the Vice-Chancellor and Mr. Metcalfe the Senate faced the problem, and like the clergyman of fiction boldly passed on. The problem of congestion has not been solved. It remains. We can understand how the Fellows, out of touch with education and not conversant with the difficulties of college organisation, should vote against the seemingly incongruous combination of science and economics. But it passes our understanding how the teaching members of the college came to vote against a proposal that was advanced in the highest interests of their college. In this too a serious defect in college organisation comes to view. The question of congestion in science seriously affects the future of science in this State, and is a question worthy of a full discussion both by the Faculty of Science and the College Council concerned. And yet to our knowledge neither of these bodies was given an opportunity to study the problem. If this had been done, the proposal would have had at its back a strong support, and the college would have been saved from an awkward predicament.

* * * * *

THE LAW COLLEGE.—The efforts of the lawyer members of the Senate to institute a faculty of law have already had the benediction of the Senate as a whole and the starting of a law college in July appears to be quite a likely contingency. But the adjourned meeting of the Senate to be held in May will have to consider the much mooted question of location. Lawyers would rather have it in Bangalore or not at all. From their standpoint there is a good deal to be said in favour of their view. But their view is frankly professional and not academic. The number of lawyers is already so overwhelmingly large in the State that it is doubtful if there is any professional urgency for introducing a law course. If, as things are, a hundred Mysore students every year are prepared to study law in Bombay or Madras, probably many more will be tempted to take up the course, if facilities are afforded them within the State itself, and this again makes the question of a law college of doubtful utility from a professional stand-point. But the main purpose of a university is to foster character and develop culture. The cultural value of a study of law is undoubted, and this alone can justify its introduction in a young university like ours. If its aim is academic, Mysore as the capital of the State and the headquarters of the university has a prior claim to house the new college. Historic conditions may have necessitated the continuance of the Central College at Bangalore and thus prevented the realisation of the ideal of a unitary university. But it would be a retrograde step in the evolution of the Mysore University to

overlook the paramount claims of Mysore so far as a Law College is concerned. When it is contended that Bangalore has the Supreme Court, let it not be forgotten that some of the most valuable legal degrees can be had at Oxford and Cambridge, and yet neither of them boasts a court of first rate importance. To be a successful lawyer a certain amount of briefless apprenticeship is inevitable. A legal degree is after all only the hall mark, not of practice, but of a certain amount of minimum legal knowledge. For such knowledge Mysore is as well suited as Bangalore.

AN EXPERIMENTAL STUDY OF EMOTION.*

INTRODUCTION.

"EXPERIMENT in psychology," says Myers, "is at least as old as Aristotle." At any rate, considerable advance in this direction was made in the researches of the Arabian physicians, notably Avicenna, Alhacen, and Averroës. But it awaited the development of the science of physics to become well established as a method of research. To Herbart, in modern times, is usually attributed the honour of recommending the application to problems of the mind the method of physics; and about the middle of the last century this recommendation was put into effect by the psycho-physiologists—Weber, Fechner, Muller, Helmholtz, Dubois, Raymond, and others. Experimentation advanced very rapidly and Wundt thought that there was no fundamental psychological process to which experimental methods could not be applied and therefore none in the investigation of which such methods were not logically required.

But the quantitative determination of mental phenomena would perhaps be an unprofitable task, or a useless pastime, if it did not find practical application. The human importance of its problems and the precision of its results call for such application, and we have to-day abundant evidence to show that education and industry have gained considerably from this branch of science. The various mental tests now in use for the measurement of mental efficiency are historically the successors of experimental researches concerned with the quantitative examination or structural analysis of mental processes, and now greatly aided by technical statistical methods which have been developed in education during the last two decades.

In the whole field of mind the cognitive processes are amenable to more or less reliable experimental and quantitative treatment but the difficulty increases as we come to investigate emotional factors. The province of Experimental Psychology has been therefore occupied, despite Wundt's dictum, almost exclusively with cognitive processes.

* This paper is a part of a larger one prepared at the University of Leeds in the early part of 1922, and has been published here at the request of the editor. The introduction has been, however, re-written for this Magazine and suffers inevitably from brevity.

Some writers, in fact, repudiate the very possibility of controlled inception of emotion for laboratory technique. Thus, while Experimental Psychology has by a natural course of development given us some of the tests of cognitive processes, we have no tests of emotion of equal validity, and this is perhaps accounted for by the fact of the comparative sterility of reliable foundational technique for the measurement of emotion. Some attempts have, however, been made, and the methods employed will now be briefly reviewed.

The first line of approach is by what may be called the subjective method. Originally employed with success in the field of sense-perception and other simple cognitive processes, it was later extended to the field of affective consciousness. But its possibilities seemed to be limited to simple feelings and it became a method of experimental aesthetics, with its three traditional procedures, *viz.*—(1) of paired comparison, (2) of choice, and (3) of serial presentation. This method has the merit of attempting to measure directly the mental processes underlying the emotion, but it has also the defect inherent in any method that relies almost entirely on introspection, and this particularly in the case of emotion. For "to be dominated . . . by a strong emotion and to follow simultaneously the phases through which it passes is a contradiction in terms."

Behaviourists (Thorndike and Watson most prominent of them all), on the other hand, study emotions from the side of the reactions that the totally integrated individual makes to his environment. But the individual here is the human body, for they have nothing to do with consciousness, and would fain throw overboard the whole psychology based on introspection. Experimental studies in terms of "situation" and "response" betray the application to human consciousness of the method of animal psychology and are condemned therefore to poverty of, and want of, certitude in results.

Physiological methods have been more successful. The attempt to measure emotions is here indirect, as what is measured is some physiological concomitant of the emotion and not the mental process itself. The problem, therefore, belongs both to Physiology and Psychology. Indeed, Sherrington has said: "Of points where physiology and psychology touch, the place of one lies at the phenomenon 'emotion.'" Studies have been made in the rate and force of heart-beat, in the rate and depth of respiration, in the volume of the limbs due to vaso-constriction or dilation, in systolic blood-pressure, in the contraction or relaxation of the skeletal muscles, and in the quantity of glycosuria discharged. But certain experimenters discredit even these methods and quote Schaefer who says: "It must be remembered that the sphygmograph

can never be applied twice in exactly the same way. This vitiates the instrument for comparative work." They would apply this statement to the pneumograph, the plethysmograph, and the respirators also.

But the latest attempts have been directed to recording what is called the psycho-galvanic reflex. This promises to be a very fruitful method of research and requires a little more detailed notice.

That the nervous system is subject to electric changes was common knowledge among physiologists for some time past, but the credit of having discovered their relation to emotional reactions demonstrable by galvanic deflection belongs to Féré. His hypothesis was that in an emotional state the resistance of the body diminishes so that when an external but weak current is made to pass through the body, the galvanic deflection obtained is bigger than what it would be normally. In the same year, Tarchanoff found out, independently of Féré, that all psychical processes are accompanied by galvanometric deflections. But his method was quite different from Féré's in that he used no external current. His hypothesis is that the reflex is due to the positive electro-motive force connected with psychical states owing to secretory changes in the epidermis. Peterson and Jung, Richsher, Raddecki, Sidis and Kalmus adopted the former technique with slight modifications. Later on, however, Gregor and Löwe, and then Waller employed a Wheatstone bridge. But whatever the technique the investigators in the field have all verified the reality of the phenomenon so that the fact of the reflex has been placed beyond all doubt.

The question then arises whether the phenomenon is a reliable objective sign of an emotion: whether, in other words, the reflex is caused by emotional processes alone and by no other psychical processes, and whether all emotional processes invariably cause it. Without going into a detailed criticism of the evidence on this point it could be affirmed that "every stimulus accompanied by an emotion causes a rise in the electric curve, and directly in proportion to the liveliness and actuality of the emotion aroused." Even if purely intellectual processes produce a reaction it is so small that it is practically negligible, while the deflection produced by certain physical causes is easily distinguishable as it is characterised by no latent-period which marks a truly emotional deflection. Further, it is contended that the reflex is independent of the ordinary signs of emotion which may or may not be suppressed, that the galvanic deflection is entirely uncontrolled by voluntary effort.

There are certain features of the reflex-phenomenon to which brief reference should be made. After the stimulus has been given, a certain period of time elapses before the galvanometric deflection begins to travel on the scale. This latent-period is taken to be roughly 3 seconds,

As to its cause there is some disagreement ; some regard it as peripheral lost-time, a time of elaboration taking place at the nerve terminals, while others regard it as time taken at the cortical centres of thought elaboration. There are, further, individual variations both in the latent-period and the time taken for the deflection to recover. This latter may be taken as an index of the persistency of the emotional state, and it shows greater variability. These individual differences extend to resistance also. Some subjects have as high resistance as 200,000 ohms, and others as low as 6,000 ohms. Even so far as the same subject is concerned resistance varies considerably on different days and even at different times on the same day owing, as Waller thinks, to variation in electro-physiological conditions of the subject which in turn depend on whether he is fresh or fatigued.

An interesting question has been raised by Prideaux in connection with resistance, *viz.*, whether there is any constant relation between the strength of the psycho-galvanic reflex and the apparent resistance of the skin as determined at the beginning of the experiment. To this we shall return later.

When the phenomenon itself was well established the question of its physiological causation began to engage the efforts of investigators. But "the problem of the causation of the galvanic phenomenon," say Sidis and Nelson, "is highly complex," and they add "it is by no means easy to disentangle such an intricate mesh of factors." In the investigation of this problem it was but natural that the respiratory, circulatory, muscular, and secretory changes which were already employed in measuring the emotions should have suggested themselves, either singly or collectively, as explanatory of the reflex, or that it should have been thought that something resident in the skin itself as temperature or cell-metabolism should be involved. Numerous experiments have been undertaken by eminent workers and on examination of the evidence furnished (which need not be quoted here) we could say tentatively that the diminished resistance is caused by the expansion of ultra-microscopic pores in the membrane between living element and internal medium, and that polarisation at this membrane is diminished, and that this expansion is brought about by nervous impulse. Nevertheless, we are still in the region of hypotheses.

The psycho-galvanic reflex has been hailed as the promise of a new light on many of the obscure problems of psychological medicine, and has particularly allied itself to the New Psychology of the Zurich School. The "complexes" have been shown by Peterson and Jung, Binswanger, and others to be discoverable much more unerringly with the help of the reflex. That "the psycho-galvanic reflex is an invaluable instrument

in the analysis of the emotions" is the estimate of Binswanger. At all events, "the galvanometer is . . . a measurer of the amount of, emotional tone, and becomes a new instrument of precision in psychological research."

While the reflex has been utilized for therapeutic purposes, and is sought equally with some other "expression methods" to be employed in judicial proceedings for the detection of perjury, etc., no attempts have been made to utilize it for educational purposes. While medicine enters to cure, it is the business of education not only to prevent, mal-adjustments and mal-developments so far as the educator's art can do it, but also to organize the living forces to best efficiency in life. In fact, the educator needs light on human emotions and motives much more than the physician. The only practical work done in this field, so far as we are aware, is by Mary D. Waller.* What follows represents, therefore, one of the earliest attempts to study systematically the emotion of school-children by the new method of psycho-galvanic reflex, with a view to elucidate some points of interest in educational psychology.

I. EXPERIMENTAL PROCEDURE.

The main work consisted in applying the emotometer to the testing of school-boys. A questionnaire was also prepared and the teachers of these boys were requested to estimate various qualities as shown below. Tests of intelligence were also given to the boys. For comparison, ten adult subjects were tested by the emotometer.

Our principal subjects were 47 boys† ranging in age from 11 years 11 months to 12 years 11 months. The practical difficulty of getting the whole number from one school compelled us to have recourse to two Elementary Schools. From school A, 21 boys were taken from two classes; and from school B, 26 boys all from one class. Having regard to our criteria of selection the ideal arrangement would have been to use boys of the same age and belonging to the same class; it was, however, under the circumstances impracticable.

(a) *Tests of Emotion.*

The apparatus used is the one improved by Waller (made by Gambrill Bros., Ltd., London). It is essentially a Wheatstone bridge in one

* Since the original paper was written Mr. W. Whately Smith has published a book, *The Measurement of Emotion* embodying his research on the influence of affective tone on memory processes, etc.

† Originally, the number was fixed at 50, but owing to illness and other causes 3 boys were prevented from completing the tests.

arm of which the patient is placed. The electrodes are zinc discs covered by chamois leather and moistened with 6 per cent saline solution, and are applied to the palm and dorsum by India-rubber bands. A, B, and C (see the diagram) are Rheostats to balance the resistance of the patient the values of which are engraved on the dials. C is usually left at zero and is only used in cases where the resistance of the patient

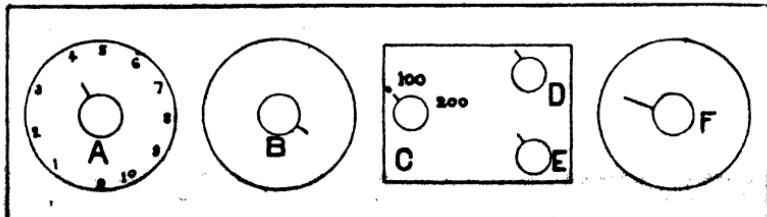


Diagram A, illustrating the exterior arrangement of the control box.

exceeds 100,000 ohms. The shunt F is provided to reduce the sensitivity of the galvanometer when the preliminary adjustments of the bridge are being carried out. D is a switch which switches on or off the current for the bridge, which is derived from two dry cells connected to the terminals marked "Bridge Battery." Switch E is the calibrating switch. In series with the patient is a resistance of 100 ohms which is connected with the resistance of 1,330 ohms and one dry cell. Thus a current of

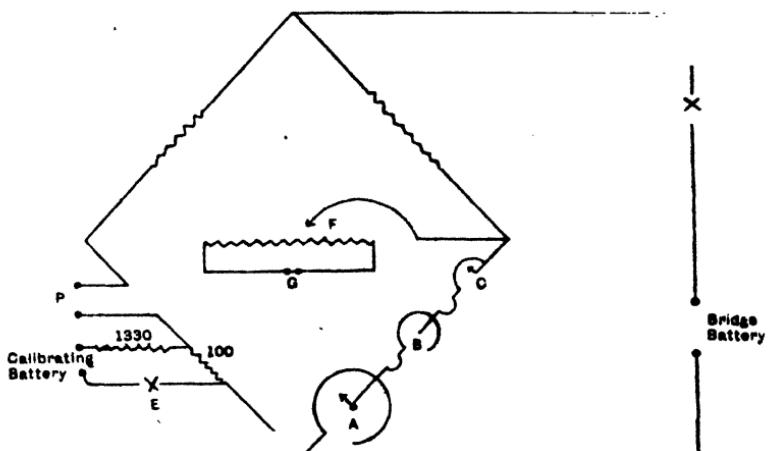


Diagram B, illustrating the principle of the emotometer.

one milliampere flows around the circuit, and there is therefore a drop of one millivolt across the 100 ohm resistance. Just before taking a record this switch E is switched on and the one millivolt gives a deflection which of course takes into account all the resistances in the bridge arms.

In making an experiment the following procedure is adopted. The galvanometer is set up on a firm support and the lamp and scale set up at one metre distance, and the lamp focussed until a clear spot is obtained on the scale. The galvanometer is connected to the galvo. terminals, the patient to the terminals marked "Patient." The switches D and E and the shunt F are set at "off." Two dry cells are connected to the bridge battery terminals and one dry cell to the calibrating terminals. Everything being ready the battery switch D is switched "on." The shunt F is turned to 500, the galvanometer deflects slightly and is brought to zero by adjustment of A and B. The shunt F is then rotated to, say, 50 and the deflection corrected by B, and then shunt F set to 5 or 10 according to the sensibility of the patient. Before taking

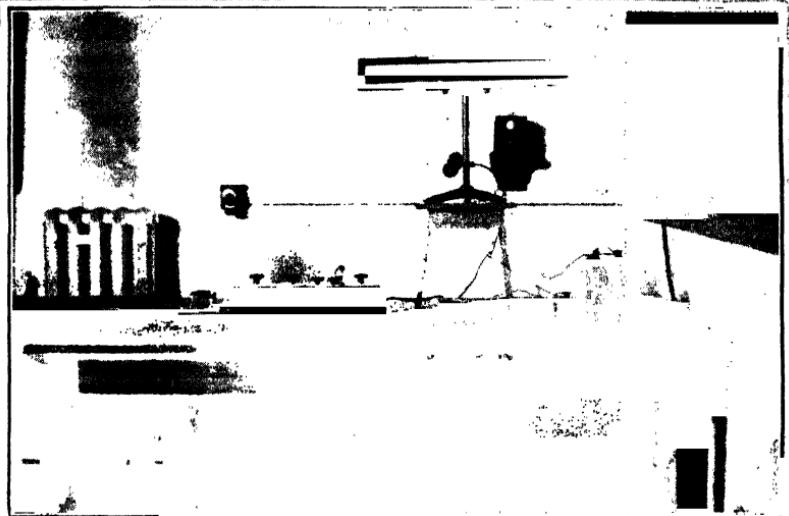


Figure illustrating the experimental arrangement of the apparatus.

record the calibrating switch is switched on for about three or four seconds to allow galvanometer to attain maximum deflection and then switched off; and this gives calibrating deflection. Stimulus is then applied and response follows, as indicated by the movement of the beam of light in a positive direction on the scale. Should the response deflection be too large it can be reduced by adjustment of shunt F, but the calibrating must be done in the same shunt position as that on which the response is to be taken.

Waller expresses the value of an emotive response in terms of voltage, by finding the ratio of the emotive deflection to the calibrating deflection. For example, if the calibrating deflection is 10 mm. and the emotive deflection is 55 mm. the value of the emotive response is .77 volt. But, for the sake of simplicity in comparing values, we chose

to express them in terms of the ratio (*e.g.*, in the case cited above as 5.5) which we called the Emotive Ratio. In the tables of the readings, in the following section, we have given for each test : the value of the shunt, the initial resistance of the hand, the calibrating deflection, the time of recovery of the spot whenever such time could be noted, the emotive ratio, and, lastly, brief introspective reports.

We found in our preliminary experiments that in most cases the resistance adjusted after the electrodes are fixed shows a tendency to decrease gradually for the first few minutes (as indicated by the steady movement of the spot to the left); so we allowed a few minutes at the beginning of each experiment for the spot to become steady. Again, whenever after each test the spot took longer time than 6 or 7 minutes to recover to the zero-point we readjusted the resistance by balancing the bridge.

The circumstances of the experiment did not permit us to take exact readings of the lost-time of emotive response for each subject, nor was it material to the aim in view; but assuming it, on Waller's authority, to be between 2 and 3 seconds, held it in view as a check on the genuineness of an emotive deflection.

The experiments were carried on in a small dark room, with light (from an electric lamp) just enough for the requirements of the experiment. The furniture in the room was little, and there was nothing to cause any special excitement. No third person was present.

The subject when first admitted into the room was familiarly greeted, and the working of the apparatus was purported to be explained to him, but the real purpose was not told. Then he was comfortably seated on a chair facing the wall. To minimize expectancy and excitement, as far as possible, the apparatus, the experimenter, and the portion of the room to the back of the subject were shut off from his view by means of a paper screen; and his attention was sought to be abstracted from the conditions of the experiment by giving him for reading a story-book, suitable to his age but unexciting in its contents. His hand forming part of the circuit was allowed to rest on a desk and he was asked to keep it quite easy, but not to open or close it as far as he could possibly help it.

In order to keep all the subjects equally ignorant of the purpose and procedure of the experiment, the Headmasters in the respective schools were requested to direct the boys not to say anything about it to others; in addition, it was pointed out to each boy that it would be to his advantage not to give out anything about the experiment to others, if he wanted to be the best. In this way an appeal was made to the boy's emulative spirit. There was no evidence, at any time, to indicate that the plan did not succeed.

It was originally intended to test the four chief emotions, *viz.*, fear, anger, disgust, and tenderness, but after a few preliminary experiments, it was thought desirable to confine ourselves to fear only, on account of the comparative ease with which it could be aroused. The following stimuli, in the order in which they are mentioned, were applied, *viz.*—

1. Threat of an electric shock.
2. Threat of a pin-prick.
3. A sudden flash of light.
4. The report of a toy gun.

As to No. 1, the device usually employed to produce illusion of warmth was adopted. A coil of brass wire, purported to be part of an electric circuit, was placed on the table near the right hand of the subject. A lamp was connected, through a key, to a battery. The coil was shown to the subject, who was told that when the key was pressed a strong electric current would pass through the coil; and by way of testing if the connections were intact the key was pressed and the light as switched on was seen. When the light was switched off, the subject was asked to hold the coil with his right hand. When he had done this instructions were given that at the signal "Ready!" the key would be pressed and that he would feel a very strong shock, which might be too strong for him to bear, but that he should not drop the coil until he was asked to do so. Then the signal was given and the key pressed. After a few seconds he was asked to drop the coil. And when at the completion of the test the subject remarked that no shock had been given him, an expression of surprise was assumed, and assigning defective connections as a probable explanation an attempt was pretended to be made to correct them.

As to stimulus 2, the subject was told that it was intended to test his blood (a pin and glass were held obtrusively as if in readiness) and so a drop or two of his blood would be taken. He was then asked to give his right hand, and the act of pricking was mimicked without, however, actually touching him with the point of the needle.

As to stimulus 3, a certain fixed quantity of flash-powder was placed on a chair about a metre behind the subject, and a cotton-wool fuse was lighted.

Stimuli 1 and 2 were intended to be ideational, and 3 and 4 sensory.

The subject kept reading during the intervals between the stimuli. When any stimulus was given the maximum limit of the deflection was noted and when that limit was reached a stop-watch was set going to note the time taken for the spot to return to the zero-point (*i.e.*, for the emotional excitement to subside completely).

Immediately after the records of each test were taken, the subject was interrogated regarding what he felt and the answer recorded. Care was taken that the procedure adopted here and in giving instructions for stimuli 1 and 2 was the same for each boy.

The time of the experiments was from 9-45 to 12, and from 1-30 to about 4; and the average length of a sitting was 30 minutes.

Before starting a second series of experiments we desired to find out what differences in the resistance of the hand were noticeable at different hours of the day—and this we considered material because Waller thinks there is a general connection between initial resistance and emotive response—and also if familiarity with the procedure affected the response. So we tested two boys (other than the 47 on our list), at four different hours of the day (about 10 a.m., 11-30 a.m., 2 p.m., and 4 p.m.) and with the same stimuli, altering slightly the order of sequence each time. No definite relation between resistance and time of day could be discovered; neither did familiarity—as far as the experiment went—appreciably affect the response. But the cases are too few for any generalisation. However, on the basis of the typical fatigue curve, we so arranged the programme of our second series that the subjects who had come early in the morning session in the first series came this time late in the afternoon, and *vice versa*, and those who had come late in the morning came early in the afternoon and *vice versa*.

As regards the stimuli the sequence was changed as also the form in two of them—completely in one and slightly in another. Instead of the coil we used this time an electric key for touching, and for the threat of a pin-prick we substituted the threat of pulling a hair by a pair of tweezers. The order of the stimuli was:—

1. A sudden flash of light.
2. Threat of an electric shock.
3. The report of a toy gun.
4. Threat of pulling a hair.

Instructions for No. 2, were the same as in series 1, except that instead of holding the coil the subject had now to touch the metallic points of an electric key which was then turned on; and in No. 3, the tweezers were first shown to the subject and then the subject was told that one of his hairs would be pulled off with a jerk. The experimenter then immediately stepped behind the subject's back telling him not to look behind. All that was done, however, was to touch his hair lightly with the tweezers.

Introspection and the time of recovery of the spot of light to the starting point were obtained in the same manner as in series 1.

In the supplementary experiments with adults, the number of subjects tested was limited to 10. They were all graduate or undergraduate students of the Department of Education in the University, and in age between 21 and 25 years.

The general conditions of the experiment as well as the character and order of the stimuli were the same as in the case of school-boys in the first series; but the subjects were aware of the purpose of the experimentation. The technique in giving the stimuli was the same also, but in introspective reports accurate but brief characterisation of the subjective state was insisted upon. The reports as recorded were in each case shown to the subject and were accepted by him to be correct.

(b) *The Questionnaire.*

When the subjects were finally selected, copies of a questionnaire were handed to the Headmasters of the respective schools. As the requisition to the Headmaster, quoted below, shows we originally thought that we could find all the boys in one school and from the same class, and so we arranged for a rating of qualities by the two persons who were likely to know the boys best in the school, *viz.*, the class teacher and the Headmaster. But for reasons stated above, in one school where the boys were taken from two classes we had not only to request the respective class-teachers to do the rating, but since the Headmaster happened to be new to the school we were obliged to have two more teachers to take his place, each for one class in addition to the present class-teacher. The other teachers were those who had the boys under them six months earlier and therefore were likely to know them next best. In the second school, though we found that all the boys were grouped in one class, the Headmaster, though very sympathetic to our endeavours, was precluded by want of time from complying with our request and so we had only the class-teacher to answer the questionnaire. In short, while in the first school there are too many standards in estimating the qualities, in the second there are too few. It might be added that having regard to the peculiarly inner character of the emotions in one's entire personality, which renders them harder to judge than perhaps general intelligence, we allowed the teachers more than a month's time to keep the selected pupils under special observation with reference to the heads under which information and rating were called for.

The following covering letter and the questionnaire were handed to the Headmasters:—

EDUCATIONAL LABORATORY, THE UNIVERSITY,
Leeds, 20th January 1922.

To

THE HEADMASTER

LEEDS.

DEAR SIR,

You are no doubt aware of the value for school purposes of the recent researches into the intelligence of children. While much has been done in that direction, no satisfactory advance has been made in the field of children's emotions. That the emotions are the very foundations of character and reservoirs of intellectual and physical energy is indisputable ; and some practical study in this direction is urgently needed.

But it is needless to say that without the co-operation of teachers who are in daily contact with children little light can be thrown on the subject. I should, therefore, feel very grateful if you would assist me by furnishing answers to the enclosed questionnaire, *after careful thought in each particular case*. It will greatly enhance the reliability of the data, if you would ask any member of your staff, who is in frequent touch with the boys, to answer the same questionnaire *quite independently of you*.

Before the enclosed forms are filled in, it will be highly desirable if you and your assistant would keep the selected pupils under close observation, to add to the knowledge of them you already possess, with a view to get more reliable information under the appended heads.

Answers may be entered in the enclosed forms and the same kindly returned to the undersigned before the 1st of March.

I am,
Yours truly,

QUESTIONNAIRE.

The Emotions of School-Children.

I. What place would you give each of the boys selected on a scale of five grades, *viz.*, +2, +1, 0, -1, -2, in respect of each of the following:—

A. General bodily activity both during school hours and in pursuit of pleasure (games, etc.).

(N.B.—In this case the 1st grade (+2) will include the particularly active—those who have a rich fund of energy, a superabundance of life, and show a natural and continual tendency to vigorous bodily activity ; the next grade (+1) will include those with a lower form of

the 1st ; and the 3rd (0) those who show a normal degree of activity ; while the 4th (-1) less than normal ; and the last (-2) will include the particularly inert and sluggish).

Note.—If there are any who alternate between high activity and high passivity—active by fits and lapsing again into inertness—such cases might also be indicated.

B. Capacity to express emotions by movements of the face and body—eyes, forehead, lips, cheeks, upper and lower limbs, head and trunk—and by blushing or turning pale, by changes in respiration or voice, by trembling and perspiring, and such other signs.

C. (1) Readiness (quickness) to feel :

a. Fear.

b. Anger.

(2) Intensity (violence) with which he feels :

a. Fear.

b. Anger.

(3) Duration of (slowness to recover from) the state of :

a. Fear.

b. Anger.

Note.—If any pupil shows any tendency towards hysteria, melancholy, or any other form of abnormal emotional development, it also might be noted.

D. General excellence of character.

E. (1) Quickness of apprehension.

(2) Profoundness of apprehension.

(3) General examinational ability.

Note.—Special aptitude in particular subject or subjects, if any, will also be noted.

II. Which of the following emotions, *viz.*, fear, anger, disgust, tenderness, curiosity, joy, sorrow, self-assertiveness, and submissiveness, is each pupil dominantly susceptible to ?

III. Is the pupil self-centred (wrapped up in his own thoughts and feelings), or, does he rather enter into hearty participation with the outer world of men and things ?

IV. Is the pupil particularly interested in anything, *e.g.*, any person as parents, brothers and sisters, classfellows, teacher, etc., or any thing as money, clothes, books, personal possessions ; or any abstract object as personal reputation, studies, play, religion, duty, position in class, honour, authority, etc. ? If so, please state in what.

V. State the characteristic form of emotional expression, of the nature of those described in I B, employed by each pupil.

VI. Does any one show any anti-social tendencies—those which are

deliberately calculated to interfere unduly with the person or property of another—such as bullying, thieving, damaging property, etc? If so, please state which.

VII. What have you to say about each pupil from the point of view of school discipline under the following heads, *viz.*, unruliness, (insubordination, answering back, mimicking teachers), inattention to what is going on in the class, talkativeness, copying, lying, etc.?

General note.—As regards the grading for question I, it is very helpful to remember that in a group of 100 boys, chosen at random, there will not usually be more than 5 in the 1st grade (+2), 20 in the 2nd (+1), 50 in the 3rd (0), 20 in the 4th (-1), and 5 in the 5th grade (-2); but the proportion might vary in certain cases.

Obviously, our questionnaire does not relate solely to the emotions as its title indicates, but to various other aspects of the personality also. As for the emotions we have called for the rating of fear and anger only (Q. I C), because firstly, these two are the most obtrusive of the primary emotions and therefore more easily estimable than perhaps others by any one who is in touch with the subject, and, secondly, since we undertook the laboratory test of fear we could not forego a detailed estimate of the capacity for anger, which two are generally regarded as not only antithetical in tendency but also mutually limiting qualities. For the sake of greater precision we chose, following Shand to break up the vague "capacity for fear and anger" into their constituent qualities, *viz.*, readiness, intensity, and duration. An estimate of general emotional capacity (Q. I B) was called for with reference to the typical Darwinian "expressions of emotions;" and it was attempted (Q. II) to ascertain the nature of the dominant emotion also; and question V was intended as a check on question II. Information on the specific sentiments was sought in question IV; and the rating of the general excellence of character was called for in question I D. All these bear directly on the emotions, and so does information on anti-social conduct, (Q. VI), and in its milder form behaviour from the point of view of school-discipline (Q. VII), both of which have been traced by writers on juvenile delinquency to emotional instability. Nor did we omit the nature of the outlook of the subject—whether outward or inward (Q. III), which again is intimately connected with emotional make-up. Further, as it was arranged to give tests of intelligence to these subjects, a rating was called for not only with respect to general intelligence under two heads, *viz.*, quickness and profoundness of apprehension [I E (1) & (2).], but also with respect to general attain-

ments [I E (3)]; and information on specific attainments was also sought. (I E Note). Lastly, physical activity, the nature of which throws some sidelight on the problem of emotion, was also included (I A).

Thus, though the investigation was primarily concerned with emotion, a more general psychographic scheme was prepared ; and there is reason why this should be so. For, the records of emotive responses in a laboratory mean very little, are of little value, unless they throw light on other problems,—unless, in other words, we are able to find out how far they confirm or contradict the relations that are supposed to exist between the emotions and other aspects of the personality. In tracing such connections we illumine the problem of emotion itself, for, the more relations we are able to establish, the significance of emotion in human life is brought out in clearer relief.

(c) *Tests of General Intelligence.*

The shortness of time at our disposal precluded the possibility of individual tests. Group tests—comprising the following, *viz.*, instructions, opposites, analogies, disarranged sentences, completion of sentences, and logical selection—were given to the boys. The tests had already been standardised for boys of this age by another research student of this laboratory, and it was only necessary to make a few modifications as determined by the results already obtained with them. The boys were examined in their own school, and on the results of the test they were placed in the order of intelligence as shown in the last vertical column of Table 1 in the protocols.

(d) *Tests of Voluntary Control of Emotion.*

After the work described in the preceding pages of this section was completed, a few additional experiments were undertaken with the purpose of obtaining evidence regarding the precise nature of the relation between attempted voluntary control of an emotion and the galvanometric records. The nature of the problem necessitated a trained introspectionist as subject, and Dr. Ll. Wynn Jones was kind enough to comply with our request to act as such at four different sittings.

At each sitting four series of tests were given, while the subject assumed four different attitudes. In the first attitude, the subject engaged himself in unexciting reading and did not know what stimulus would be coming nor the time at which it would come. His mental attitude could be characterised as one of perfect indifference. In the second attitude, he was asked to concentrate attention on thoughts concerning the stimuli, with a determination not to be affected. In the third, the subject fixed attention on keeping the limbs and trunk equipoise and all his muscles lax, with a view to

resist being affected emotionally. And in the fourth attitude, he concentrated attention on something quite unconnected with the experiment, and by getting thoroughly absorbed in it tried to create a vacuum, as it were, around the mind, here again with a view not to be affected by any stimulus that might come. Shortly stated, the first is a passive attitude, and the other three have all as their end the control of the inception of emotion with a variation in the means employed.

But since any of these three attitudes with the fixation of attention on some object, cannot with any great success be continuously maintained for more than a few seconds, it was felt necessary to take first the required preliminary readings (*i.e.*, of the resistance and calibrating deflection) and then signify to the subject that he could take the required attitude. Then within ten seconds of such attitude being taken the stimulus was applied. After the deflection was noted, detailed introspective reports, regarding the degree of success with which the attitude was taken and the quality and intensity of the emotional experience felt, were called for.

The stimuli* applied were :—

- (1) The report of a toy gun.
- (2) A sudden flash of light.
- (3) Pulling the hair.
- (4) Cold touch.

The order of the stimuli was varied in each series, and also the sequence of the attitudes taken in order to equalise the effects of such extraneous factors as familiarity, fatigue, etc.

Subsequently, the writer himself acted as subject, while Dr. Ll. Wynn Jones experimented. Two experiments were performed at two sittings. The general procedure, and the stimuli, etc., were the same as in the experiments just preceding.

II. PROTOCOLS.

(The mass of data being bulky, the protocols are too elaborate for inclusion in this Magazine.)

III. DISCUSSION OF EXPERIMENTAL RESULTS.

Owing to the nature of the apparatus used and of the technique involved it might be possible to consider our results according as they involve mainly physics, physiology, psychology, or pedagogy. But as these distinctions are not always clear-cut it was not deemed advisable to adopt such a procedure.

* Of the stimuli mentioned the first succeeded best and, therefore, the results of that test alone were taken into account in drawing tentative conclusions.

Among the problems to be discussed in the following pages are these :—

1. Does the psychogalvanic reflex yield a reliable comparative index for psychological and pedagogical purposes ?
2. (a) Is there any constant relation between the initial resistance of the subject and his emotive response ?
(b) Is this resistance constant for the same subject at different times ? If not, what is the nature of the change thereof ?
(c) Is the reflex under voluntary control ?
3. How far does the estimate of the child's emotivity furnished by the emotometer * tally with the judgments of the teacher which are based on intimate and prolonged contact with his pupils ?
4. What is the relation of intelligence to emotivity ?
5. How far is temperamental instability due to excess of emotion and how far to deficiency of intelligence ?
6. What is the relation of emotivity to bodily activity ?
7. What is the relation of emotivity to certain attributes of character ?

1. Whether the emotometer is a reliable and exact psychological instrument for measuring emotions should first be answered before we consider other results. The evidence furnished by previous investigators—Waller, Starch, Binswanger, Peterson and Jung, and others—and which was based on introspection was reviewed in a previous section and that pointed to an affirmative answer. The introspective reports of our adult subjects also, as well as those of a trained psychologist in our experiments on the voluntary control of emotions, show a general agreement with the readings of the emotometer. One could not, however, expect a subject to discriminate between the two subjective states corresponding to emotive ratios of, say 0·5, and 0·7 respectively. A general agreement should be evidence enough, and that we believe our protocols present.

But even when it is admitted that "the psychogalvanic reflex is the most delicate method yet devised for the detection and measurement of affective tone" its value for comparative purposes is discounted. It is, therefore, necessary to see how reliably it furnishes comparative estimates. As it is connected so intimately with the physiological conditions of the body a high correlation could not be expected. Using the product-moment method, our results furnish a correlation-coefficient of 0·60 (P. E. — 0·063) between the totals of the first series and those of

* Peterson, F. gives the name "electric psychometer." But since its special domain is emotions, as he himself admits, we prefer to call it the "electric-emotometer" or, shortly, the "emotometer."

the second series of experiments, the interval between the two series of tests for the same boy being about a fortnight.

To appreciate the size of this reliability, we should compare it with the reliability of tests of intelligence. Though Terman claims a correlation as high as .933 between his tests given to 315 children at different intervals of time, Haggerty finds a correlation of .787 between his two tests of Delta 1 given to over 100 pupils at an interval of six weeks, and that ranging from .71 to .86 between two series of individual tests of Delta 2.

Though these figures are higher than the one we have obtained, yet having regard to the smaller number of our subjects, to the small number of the stimuli employed, and to the nature of the subject-matter of our study we should regard a correlation of 0.60 as satisfactory, and this serves, we believe, to establish the reliability of the instrument as a measurer of emotions.

It should be noted in passing that in the first series of our tests the correlation-coefficient between the two sensory stimuli is 0.87 and that between the two ideational stimuli 0.79, while the same in the second series is 0.73 and 0.69 respectively. Both the coefficients in the second series are lower than those in the first, and this decrease may be due to individual differences as regards familiarity with the stimuli.

As regards the distribution of the sum of emotive ratios for each boy, we find a wide range. The lowest is 4.2, and the highest 88.9, the latter being 21 times the former. The median value is 19.1; and one-fourth of the boys tested are distributed between 18 and 20. Another fact that requires to be noticed is that near the bottom of the scale there are rather more values than would be expected; but it should be remembered that slight experimental errors are likely to creep in when the values are so small.

Table VII.—*Sum of Emotive Ratios (both Ideational and Sensory).*

		Minimum value	Median value	Maximum value
Boys ..	..	4.2	19.1 (Av. 20.6)	88.9
Adults	..	3.2	15.0 (Av. 13.6)	21.3

Table VIII.—*Sum of Emotive Ratios (Ideational only).*

		Minimum value	Median value	Maximum value
Boys ..	..	2.3	9.3 (Av. 10.4)	43.3
Adults	..	1.6	10.5 (Av. 8.9)	15.3

Table IX.—*Sum of Emotive Ratios (Sensory only).*

		Minimum value	Median value	Maximum value
Boys ..	..	1.9	8.5 (Av. 10.2)	45.6
Adults	..	1.6	4.4 (Av. 4.6)	8.5

The adult cases tested are too few to warrant an exact comparison. Nevertheless, the total values are well scattered. The corresponding range is from 3.2 to 21.3, with a median value of 15.0. All these values being smaller than the corresponding ones for boys, it would seem that adults are less susceptible to fear stimuli. An analysis of the results shows that the median for ideational stimuli for boys and adults are 9.3 and 10.5 respectively, and for sensory stimuli 8.5 and 4.4 respectively. It is significant that while the median for ideational stimuli is higher for adults than for children, the adult median for sensory stimuli is about half of that for children. So the disparity in the total emotive response is accounted for by the low susceptibility of adults to sensory stimuli. If we could generalize from these few cases, we might say that children experience greater fear at sensory stimuli than adults. A theoretical explanation would be that fear being perhaps the earliest and the most fundamental of the emotions, its neural mechanism is set in full motion by its more primitive (*i.e.*, sensory) inlet, whereas an adult has adjusted his scale of fear to that of danger, and although the native sensory excitants of the emotion never altogether cease to be operative the effectiveness of operation is transferred to the ideational inlets. In other words, the adult's sensory fears shrink while his ideational fears enlarge when the emotion enters into wider and richer organisations of sentiments. A comparison of the ratio of the sensory to the ideational fear in the case of

children and of adults is interesting in this connection. While for children the ratio is 1 : 1.1, it is 1 : 2.4 for adults. The second term in the latter case is more than twice that in the former. This has a bearing on another of our results and will be considered in another place.

2. (a) If the instrument is reliable for comparative estimates, we should be able to adduce from our results some evidence regarding problems connected with its technique. One of these is: Whether there is any general and constant relation between the strength of the psychogalvanic reflex (emotive response) and the initial resistance of the hand. There is a difference of opinion on this point. We cited elsewhere A. D. Waller's view that there is such a relation though it is unsupported by statistical evidence. And W. Whately Smith found a correlation-coefficient of - .497 between the mean galvanometer deflexion and the mean resistance for his 50 subjects, and concludes: "There is a strong tendency, as we would expect, for deflexions to increase as resistance decreases." But, on the other hand, E. D. Waller's figures show that of the two groups of her 73 subjects, the group which on an average made bigger emotive responses had on an average slightly higher initial resistance also. And Ricksher and Jung found no relation between resistance and emotive response. Prideaux while regarding the question still open, thinks that if Waller's assumption is proved the procedure could be greatly economised, and, besides, the conclusion would be in conformity with R. Vigorous's work who pointed out that resistance of the skin was considerably diminished in cases of exophthalmic goitre, and increased on the anaesthetic side in cases of hysterical hemianæsthesia. We sought a correlation between the sum of the initial resistance for all the 8 tests for each of our 47 subjects and the sum of the corresponding emotive ratios. We found no correlation between the two—either positive or negative. Our results, therefore, warrant us to agree with Ricksher and Jung in saying that initial resistance and emotive response are quite independent factors.

(b) The average resistance for each subject for both the morning and afternoon sittings is 24,000 ohms (the median of the series is 18,250 ohms) while the average for the morning sitting is 14,500 ohms (median 10,625 ohms) and for the afternoon 9,500 ohms (median 7,312 ohms). From this it will appear that the resistance is generally higher during the morning than during the afternoon. Waller says that the variation of resistance depends on whether the subject is fresh or fatigued. If resistance is related to fatigue then, on the basis of what is generally believed regarding the amount of general fatigue in the morning and in the afternoon,—viz., that it is on the whole smaller in the morning than in the afternoon,—we could say that when the subject is comparatively fresh his resistance is greater and when fatigued less,

This result is, however, in conflict with the implication of Waller's diurnal curves of conductance, namely that resistance is higher in the afternoon. There is a further implication in his papers that fatigue causes rise in resistance. And M. D. Waller speaking of resistance, says "I find . . . that the resistance is much higher when a subject is fatigued and will alter with the time of day." But we can say nothing beyond the statement of our result and its obvious interpretation. As to the diurnal curve of resistance, we have no sufficient data, since we did not test any appreciable number of subjects at different hours of the day and for any considerable length of time. An attempt was made, as stated above, and two boys were tested at four different hours of the day, but since this was not continued for several days, we are not able to make even a tentative generalisation.

But whatever the physiological or chemical processes on which resistance depends, the changes in resistance were not absolutely arbitrary. There is a certain correlation between the resistance in the morning and the afternoon sittings, *viz.*, 369. It will be recalled that the two sittings were at an interval of about two weeks for the same boy. This leads to an inference that resistance depends, partly at least, on some physiological condition, fairly stable for each individual and undergoing some alteration from morning to afternoon. What it may be is a physiological problem not within our scope.

Another fact to which reference should be made in passing is that in certain cases the beam of light reflected by the mirror-galvanometer remained throughout the experiment quite unsteady—moving to and fro—such as even to affect the accuracy of the experiment. Since such unsteadiness, when the physical conditions are constant, could only mean mental excitement* with its ebb and flow (as, in fact, the testimony of two of our adult subjects, *viz.*, H. C. and R. H. K. shows) we thought that such unsteadiness might be an index of high emotivity. On calculating, however, the "correlation of presence and absence" between high emotivity and the unsteadiness of the spot of light we found the coefficient was only .27. Thus, though there is some connection between these two, we cannot take unsteadiness of the spot as denoting high emotivity.

(c) In an earlier connection the conflicting conclusions reached by investigators regarding the question—whether the reflex is under voluntary control—were reviewed. Abramowsky in two experiments finds that in some cases at least the reflex is controlled by will as indicated by a decrease in the galvanometric deflections. This, he

* Peterson, F. and Jung, C. G., characterise this feature as expressive of great lability of emotions.

explains, was not due either to familiarity with the stimuli or to purely physical causes but to an act of will—the will, like suggestion, working directly on the organic sensations. So, he would take the control of the reflex as a test of the strength of the will. This view has found support in the theoretical formulations of Baudouin; for, as we have seen, the latter quotes Abramowsky's results in support of his own thesis. We noticed also that Coleman without any explicit reference to Abramowsky's experiments, found he could control the reflex at will. But, on the other hand, Peterson thinks that the reflex is beyond the control of the will, and so does Waller. Neither Gregor nor Radecki could succeed in influencing the reaction by volition.

As regards the means employed by Abramowsky's subjects to control the reflex, some stated in their introspective reports that they had turned attention away from the experiment, while others stated that they had occupied their minds with thoughts concerning the stimuli. Abramowsky, however, discredits the testimony of those subjects who employed the former means, and believes that they really were thinking of the stimuli. Coleman directed attention on bodily poise and laxity of muscles. Our own voluntary attitudes represented these three means and we found that taking up of any of these attitudes caused a deflection of the galvanometer, on account perhaps of the excitement due to the anticipation of stimuli; but this excitement as indicated by the deflection, it should be added, was not as strong as the excitement of the shock when the actual stimulus was applied in a passive attitude. Further, when, after the attitude is taken, the stimulus is applied the response is not so great as the one made while the subject is passive; this is, perhaps, because the structural system of the emotion has already been aroused into activity by the attitude with its accompanying excitement, and has, thus, partly spent itself.

As to the comparative merits of the three attitudes, attending to coming stimuli was not effective in diminishing the reflex, but, on the other hand, increased it. Turning attention on to something extraneous to the experiment is more effective than the other two attitudes, probably because the pre-occupation of the mind with extraneous objects dams up emotional associations, which, as we shall note in another place, enhance the excitement of the situation. These conclusions are in conflict with those of Abramowsky; but this is what we could say on the basis of our very limited experimentation.

3. Having seen what correlation the emotometer shows between its own records on two separate occasions, we have to test its reliability by applying a further criterion, *viz.*, that of the teacher's estimates. It is Terman's experience that "the teacher's estimate of a child's

intelligence is much more reliable than that of the average parent: more accurate even than that of [the physician who has not had psychological training." This advantage, he thinks, the teacher owes as over the physician to this psychological training and to his wider experience in judging the mental performances of children, and as over the parent not only to his special training but also to his freedom from the effects of parental affection and habituation to the child's mental traits. "There is no standard of comparison which can surpass or supersede the considered estimate of an observant teacher, working daily with the individual children over a period of several months or years" says Burt. Now, if the estimates furnished by the emotometer are accurate one would expect a high correlation between them and the teachers' estimates, provided the latter possess fair reliability. But the correlation-coefficient furnished by our data is -125 ; and when the separate factors (*viz.*, readiness, intensity, and duration) are examined to see if they give us any clues as to this complete independence (or even incompatability) we are in no better position, for the correlation-coefficient for the emotometer estimates and readiness is -259 , for intensity $.054$ (P. E. 0.062), and for duration $.054$. Even intensity alone, which above all others the emotometer is presumed to measure, yields a correlation less than its probable error. Thus if the teacher's estimates are correct then the emotometer ceases to be of any significance.

But the reliability-coefficient for the teachers' estimates of readiness is $.158$, of intensity $.089$, of duration $.209$, and of the pool of these three $.054$, although one may doubt the propriety of pooling these three together. (The reliability of their estimates of anger is not appreciable either; it is only $.192$. These figures give us pause and compel us to suspend our judgment as to the unreliability of the emotometer.

We cannot either say that our teachers do not know their pupils and cannot judge their mental make-up. They are all of them experienced teachers who had charge of the pupils for several months. For, when we turn to reliability of their estimates of intelligence qualities, we find the co-efficient high enough, *viz.*, $.567$. It could compare with figures given by well-known investigators in intelligence. Webb's average reliability coefficient for 140 boys from 4 schools is $.52$ for quickness of apprehension, and $.51$ for profoundness of apprehension (the two qualities we selected); Terman's coefficient for 102 pupils is $.677$; Burt's for special schools (729 children) is $.81$ and for ordinary schools (2,674 children) $.89$; H. Waite's reliability-coefficients for 1,405 and 2,018 pairs of judgments of intelligence are $.47$ and $.50$ respectively. Thus, the reliability of our teachers' estimates

of general intelligence qualities is fairly high, while that of their estimate of general examinational ability is higher still, *viz.*, '606.

If the teachers' estimates of general intelligence show fairly high reliability then we should expect a positive correlation between their estimates (pooled and averaged) and those given by the tests of intelligence we used. The correlation we obtained is '458. Here again it will be interesting to compare it with those found by others. Terman's correlation-coefficient for 102 superior children is '59, and for 1,000 normals '48; Webb's is '60 for quickness and '57 for profoundness of apprehension; and Burt's coefficient for children of 12 years of age is '60 for Binet-Simon tests and '74 for his own reasoning tests (with the average for all ages of '51 and '70 respectively). Thus, the inference we are compelled to draw is that while general intelligence, and much more general examinational ability, could be gauged with more or less exactness, emotivity is too elusive and subtle for teachers' judgment. It only brings home to us the essentially inner character of emotions which escape the searching eye of even an observant teacher. "Here" (*i.e.*, in the province of emotions), says Horne, "we are in our individuality, inaccessible to dearest friend and foe alike." In short, teachers' estimates (so far as the emotions—even the coarsest of them—are concerned) are of very doubtful validity*; and so we are not justified in taking them as a criterion and inferring that the emotometer is unreliable.

It might in passing be noticed that a high correlation was found between teachers' estimates of general intelligence and general examinational ability (*viz.*, '875). Of the two intelligence-qualities, quickness of apprehension correlates a little more highly ('857) than profoundness ('801). Terman's coefficient for 102 subjects is '70; Webb did not include general examinational ability for boys, but the correlations between quickness and profoundness of apprehension estimated by prefects, and general examinational ability as judged by terminal examinations, in the case of students are '50 and '77 respectively; while Hollingworth found a correlation as low as '22 between academic records and estimates of intelligence by associates, in the case of junior college students, and that of '37 for senior students. A fairly high correlation between intelligence and examinational ability should at all events be

*When the unreliability of teachers' estimates of emotions, which we had found was stated in a private conversation to a lecturer in Education, he remarked that under the present disciplinary conditions in schools teachers have no opportunity of judging the emotions of children. This very argument necessitates an objective standard, and the question how far the emotometer supplies the want awaits further trial at the hands of many more investigators. We have, as stated above, found some reliability in its estimates and on this tentative basis our further conclusions rest.

expected. But the high degree of relation we found gives room for suspicion that our teachers have been unduly influenced by the examinational ability of their pupils in their estimates of the two intelligence-qualities mentioned; and this would seem to confirm Hollingworth's opinion that "the teacher's estimate is perhaps very likely to be based on that sort of intelligence which shows itself in academic performance only, since in many cases the acquaintance is limited to contact in class-room and laboratory."

We have also to remark incidentally that our group tests of intelligence have been successful. Their correlation with teachers' estimates has been quoted in another connection; with examinational ability it is .50. Not only do these positive and fairly appreciable correlations bear out the presence of a common factor (Spearman's "g"), but the higher correlation between quickness of apprehension and "g" (*viz.* .50) as compared to that between profoundness of apprehension and "g" (*viz.* .414) supports Webb's results. [Webb's correlations are .60 for quickness, and .57 for profoundness, for the boys' results]. Seeing that quickness of apprehension correlates higher with examinational ability also, it would not be hazardous to say it gives a better clue to the measure of "g" than profoundness, so far at least as school-boys are concerned.

4. The traditional, and even now the popular, view as regards the relation of emotion to intelligence is that they are antithetical. Even in scientific papers this view is not seldom espoused. The mind of man, says a recent writer, may for purposes of demonstration be compared to a straight line. At one end of this potential line is reason, at the other emotions. But to consider emotions more specifically, Binet thinks that the degree of intelligence has little to do with fear. Turning to more recent investigators we do not find any explicit statement on this point. Terman appears to regard emotivity and intelligence as independent and so also Burt. But M. D. Waller working with the psychogalvanic reflex, has something to say about this relation. The problem she placed before herself was "to seek a possible correlation between intellectual efficiency (as measured by examination) and emotive response to various stimuli." She divides her 73 students into two classes—1 and 2—according to the results of an hour's examination in physics, and then compares the emotive responses to several fear-stimuli—3 ideational and 4 sensory—made by members of the one group with those made by members of the other. Her general conclusion is that "an intellectual efficiency is in some degree associated with higher nervous sensitiveness as measured by the electrical emotive response for different stimuli." She does not, however, state the exact degree of correlation she found.

Our results show a correlation of .354 between the estimates furnished by tests of intelligence and those by the emotometer.* The correlation between examinational ability and emotivity is .307, and that between the teachers' estimates of general intelligence and emotivity as measured by the emotometer is .259. The correlation between the pool of those three together (*viz.*, intelligence tests, teachers' estimates of intelligence and those of examinational ability) and emotivity as furnished by the emotometer is .338. Thus though Miss Waller's conclusions were based on such an unreliable estimate as an hour's examination in physics, yet we must in view of our results confirm her conclusion. It is not only with permanence of mood as Webb and Terman have shown that intelligence is to some extent correlated, but also with the intensity of emotion which, above everything else, the emotometer measures.

There is another point in this connection which we should notice. Starch found that giving the signal (for the ringing of a bell) without actual ringing was followed on an average by a greater deflection than the actual ringing. Waller repeatedly emphasises the point that threat, for instance, of a burn is more effective than the burn itself, the lighting of a match than the application of the match to the free hand; and in one place remarks that he found as a rule, but not as an invariable rule, that officers (in military service) and members of the literary, artistic, and scientific professions give a relatively high response to the imaginary excitation, whereas manual workers and privates to the real stimulus. He, however, finds numerous exceptions and emphasises the need of statistics for a large number of cases, systematically measured, before any rule can be regarded as valid. Miss Waller furnishes some statistical evidence regarding this closer relation between ideational fear and intelligence or "intellectual efficiency" as she calls it. "The ratio of the response to 'suggestion stimuli' (apprehension and questions), to the response to physical sensation (noise, burn, smell)," she says, "is relatively greater for class 1." Our results bear out this conclusion also. The coefficient of correlation between estimates by intelligence tests and the total response to the four ideational stimuli is .429, while that between the former and the total response to four sensory stimuli is .259. If the ideational form of fear correlates significantly with "g," the explanation is not far to seek. In such cases it will be ideational elaboration of the threat with all the

* Webb, who includes "readiness to show fear in the face of bodily danger" among emotional qualities of his list, finds a positive correlation of .26 between it and general intelligence. Though distinct, readiness and intensity are likely to go together. So this indirectly supports our result.

richness of association that accounts for greater responsiveness; and greater ideational elaboration is, we suppose, one of the marks of higher intelligence.

This conclusion is further supported by the emotive responses of our adult subjects. As already noted, the median emotive response to ideational stimuli was in their case about 2.4 times that to sensory stimuli, while it was only 1.1 times in the case of children. This greater disparity would seem to be an index of the differentia in intellectual development in the two cases.

It is interesting in this connection to note that Prideaux also thinks that there is some correlation between intellectual development and the reactions to the two different classes of stimuli. "The greater the intellectual development" he says "the more pronounced are the reactions to ideational stimuli." . . . "It is certainly my experience," he adds, "that the reactions in subjects of poor intellect, as evidenced by their low standard at school, are rarely so marked as in my intellectual subjects." He cites also Claparède who obtained no reflex in the case of four idiots even after painful stimuli. The conflicting observation of Gregor and Gorn which Prideaux quotes, in which they obtained normal reactions to *sensory* stimuli from an idiot, does not militate greatly against this trend of opinion, because it says nothing of ideational stimuli. Since ideational stimuli, as we have also found, correlates more highly, evidence on this point should carry greater weight. Clinical evidence regarding the low psychogalvanic reaction in cases where there has been deterioration of the cerebral cortex also lends support to the conclusion regarding the relation of intelligence and response to ideational stimuli.

5. A positive correlation between intelligence and emotivity leads us to another consideration, namely, the connection of temperamental instability and intelligence. The problem of temperamental instability lately brought into the foreground as the basis of juvenile delinquency has received some amount of consideration at the hands of experimental psychologists. We had no opportunity of examining delinquent subjects, so that problem is beyond the purview of this paper. We are, nevertheless, concerned with a mild incipient form of it in what are commonly called breaches of school discipline; and what applies to the more serious form will apply *mutatis mutandis* to the milder.

Binet and Simon were perhaps the first to study the unstable child from the pedagogical standpoint. Though they distinguish three types among the abnormal, *viz.*, the defective in intelligence, the ill-balanced, and the mixed type, even in cases of the pure ill-balanced they find an intellectual retardation of about a year. Goddard, Healy,

Wallin, Terman, and others lay greater or less emphasis on the factor of low intelligence. Burt, however, regards instability, when innate, as due to excess of emotion; he discounts the factor of low intelligence, and complains that "the share contributed by mental defect has unquestionably been magnified." But though he theoretically regards instability as due to congenital instability in the central factor common to all emotions, which he elsewhere postulates, and says "A person may show a definite instability of temperament, but a normal or nearly normal intellect," he qualifies his statement and says also "the distinction between these two contrasted aspects of the mind—the intellectual and the emotional—is not rigid or complete"; only that to disprove deficiency in intelligence is not necessarily to disprove mental deficiency in all its forms. With the plausibility of his theoretical considerations we are not concerned; his results and conclusion agree with those of other investigators. "On an average" he concludes, "the delinquents are retarded by nearly two years in general intelligence." He does not tell us in how many cases excess of emotionality alone was responsible for instability.

Our problem, we stated, was not juvenile delinquency in its legal sense, but mere temperamental instability that causes embarrassment to the teacher. We sought by the method of "coefficient of presence and absence" to find out if those pupils who were reported as showing any of the common symptoms of instability were those whom the emotometer gave a high place in emotivity. The coefficient obtained (according to the formula given by Whipple) was $-'39$. But the same for the two qualities, *viz.*, instability and low intelligence (as measured by the tests) is $+'19$. Though the latter figure is not so big as one in the case of delinquents is likely to be (in fact, Burt's coefficient by a similar formula, for delinquency and mental deficiency is $'33$), instability and high emotivity at any rate do not have any tendency to go together. So we might tentatively conclude that instability is not in the main due to excess of emotionality but rather to defect of that control which in normal cases is imposed by intelligence. Wehrlin says "Cases seem to occur which are essentially marked out by incapacity for concentration—where the intellectual weakness expresses itself chiefly by its great associative superficiality. Individuals of this kind frequently show strong social instability . . ." And Wallin referring to the intelligence level of "disciplinary cases," says "that it is particularly the backward pupil who creates the problem of discipline in the schools, is in harmony with the observation of Katherine B. Davis. . . . She has called attention to the fact that it is the borderline cases which cause the most trouble in institutions, 90% of the disciplinary troubles being attributed to them." Even in cases of strong emotionality an average intelligence should be able to control the

inner dynamic forces when they contribute to social inefficiency, and harness them to right ends. But when intelligence is below the normal level, social situations are not properly apperceived, consequences not correctly appreciated, and impulse has free play. "The outbreaks," says Terman, "are not so much due to the overpowering strength of impulses as to the weakening of controls." The compelling nature of children's emotions which that great student of childhood—Stanley Hall—brings home to us may be explained also according to this view; they are compelling not because they are stronger than adults' but because the controlling power is weaker than that in the case of the latter.

There is another point in this connection which emerges from our data. We found a fairly appreciable negative association between instability and general examinational ability, *viz.*, - .49. Burt and Terman also think that instability is largely responsible for educational deficiency. (Burt's coefficient of association between delinquency and educational deficiency is .71) If there is any connection at all between low intelligence and instability, the educational backwardness of the unstable finds a ready explanation. Low intelligence, it is well known, implies still lower educational ability, because other factors also that hamper educational efficiency go with it; and these disturbing factors are accentuated in the unstable. It should not surprise us then, when according to our data the association between instability and educational deficiency is $2\frac{1}{2}$ times as great as that between instability and low intelligence. *

6. We have next to consider what relation emotivity bears to general bodily activity. Do the highly emotional (our enquiry is narrowed to fear alone) conform to the traditional description, and have as Ribot says "as their special characteristic the exclusive predominance of sensibility" at the expense of bodily activity, or, are they "like machines always in motion" exhibiting their emotional capacity in general bodily activity? Our result does not favour the one view or the other; we only get a small correlation of .192. So that we might say that practically bodily activity is no index of one's emotivity. But bodily activity correlates more highly with general intelligence, the coefficient being .259. We can, therefore, say that children with normal emotivity and intelligence are inclined to be active. †

* It might be just noted here that a boy of 12 years, who was notoriously ill-balanced, was tested by Dr. Ll. Wynn Jones and his intelligence appraised at $8\frac{1}{2}$ years (I, Q.-71); he was found exceedingly weak on the scholastic side. We tested his emotivity with the same procedure we had been testing normal children with, and found that though he stood high in our list, he was by no means the highest. A single case cannot, however, lend much support to any conclusion.

† Webb, as stated above, includes only "readiness to show fear in the face of

7. Lastly, as to character we found our teachers were not guided in their estimates by the examinational capacity or the general intelligence of their pupils. There is a correlation of .291 between general intelligence as estimated by the tests and excellence of character as rated by the teachers (see the questionnaire). But there is the same degree of correlation between the latter and emotivity. This evidence would seem to show that excellence of character, intelligence, and emotivity have some common factor; and it seems that further research on this point is desirable.

SUMMARY OF RESULTS AND CONCLUSIONS.

(1) Since the readings furnished by the emotometer are in general agreement with adult introspective reports, and since also there is a fairly high correlation between its estimates even at some interval of time, it may be regarded at present as the most accurate and reliable instrument for measuring emotions.

(2) There is no relation between the initial resistance of the subject and his emotivity.

(3) Resistance of the hand varies considerably from day to day and also at different hours of the day. Nevertheless, there is a tendency for a group of subjects to retain their relative position from day to day.

(4) There is very little relation between the unsteadiness of the spot of light and high emotivity, so that one cannot say that because a subject shows "emotional lability" during the course of the experiment he is highly emotional.

(5) So far as we could conclude from the very limited experimentation carried out, turning attention on to something extraneous to the experiment was the most effective attitude for diminishing the reflex.

(6) Though teachers can judge the general intelligence of their pupils with fair accuracy, they are greatly at a loss in estimating emotional capacity.

(7) Of the two intelligence qualities, quickness of apprehension is a more accurate criterion of "g," in the case of boys, than profoundness of apprehension.

(8) Intelligence and emotivity are to some extent correlated, and this correlation is greater for the ideational form than for the sensory.

(9) Temperamental instability seems less due to high emotivity bodily danger" in the list of emotional qualities he investigated. The correlation he finds between this and (a) "degree of bodily activity during schools hours," and (b) "degree of bodily activity in pursuit of pleasure" is —.48 and —1.05 respectively, with an average for both of —.76. The correlation between general intelligence and the two qualities mentioned is .57 and .26 respectively, with an average of +.41. The first average is in conflict with our result and seems to bear out Ribet

than to low intelligence. Even normal emotionality with less intelligence-control is likely to result in outbreaks which are socially reprehensible.

(10) This low intelligence and its detrimental effects on the moral side might account for the educational backwardness of the unstable child.

(11) Though intelligence goes to some extent with general bodily activity, emotivity is not antithetical to it.

(12) Excellence of character is as much connected with emotionality as with intelligence (is as much, in popular phraseology, an affair of the head as of the heart); and the inter-correlations among these three seem to indicate the presence of a common factor.

M. SULTAN MOHIYUDDIN.

THE MODERNISM OF PLATO.

FEW epigrams have had such a triumphant career of popularity as the one of Schlegel that every man is born either a Platonist or an Aristotelian, and yet, as is the usual fate of epigrams, it expresses but a misleading half-truth. Through centuries Plato has been branded as a visionary, who despairs the vulgar details of every-day life, and finds the joy of his existence only in contemplation of, and devotion to, the world of Ideas, supersensuous, existing apart, a blaze of light and inspirations, from which all but the privileged race of philosophers are rigidly excluded. Aristotle on the other hand has been pictured as a man of hard facts with his gaze constantly fixed on the ground, unallured by the attractions of a world beyond, wholly devoted to the possible and the actual, and callous to the fruitless charms of Utopias. This vivid contrast has sunk deep in the popular consciousness. But it is entirely the outcome of a hasty generalisation, born partly of a puritanical suspicion of Plato's sublime imagination and partly of an admiration for Aristotle's hard, crabbed style with its imposing array of historic facts. The contrast is really only an illusion. A close comparative study of the two masters reveals a surprising conformity of views. In no department of metaphysics, ethics, or politics are Aristotle's views entirely original. They are taken up from Plato, and presented in a scientific garb. The metaphysics of form and matter, the ethical doctrine of virtue as essentially a mean or moderation, the political doctrine of royalty and aristocracy as the best forms of government or the classification of states on the double basis of number and quality, not to mention a host of other minor details, are all to be found in Plato. Nor is it true to say that Plato was not interested in the hard realities of life. Far from it, he understood them only too well, and hence was all the more eager to put politics on a sound basis. Nothing disgusted him more than the ignorance of statesmen, who above all should be men of wisdom and virtue. He was profoundly dissatisfied with all forms of existing states. That is the gravamen of his complaint in the *Republic* and in *Alcibiades I* he expresses his disaffection even with Pericles, whom after-ages have regarded as the greatest of the Athenian statesmen. Pericles is condemned as a mere rhetorician, who mixed with philosophers, but failed to catch the philosophic spirit. Thus Socrates exhorts his young friend

Alcibiades to give up his ignorance and qualify himself for statesmanship with a high degree of education. "My good friend," Socrates is made to say, "you are wedded to ignorance of the most disgraceful kind," for as the wisdom of the statesman is the highest, so his ignorance is the worst. Now and again he feels tempted to speak of earthly affairs in disparaging terms, but invariably he proves himself a loyal son of mother Earth. He would force all the wise men to cry halt to their studies at a certain point, and to betake themselves to the responsibility of ruling, for the guidance of a state is of too sacred a character to be entrusted to any hands but the best. Plato was no visionary. Even when he knew what would be the best, he was not dead to its limitations and its difficulties. He was prepared for the second best compromises, and this explains the difference between the *Republic* and the *Laws*. He knew that ideals have their worth, for they electrify men into activity. In the *Apology* Socrates is made to picture himself as "that gadfly which God has attached to the state." Ideals are gadflies, goading men in an upward direction, so as to approximate as much as possible to the ideal. But he did not fail to realise that even ideals have to be adapted to the hardness of facts.

Platonism has an undying significance, for it personates the spirit of truth, of justice, of freedom of thought. The lofty words that Plato puts in the mouth of Socrates in the *Apology* may without exaggeration be appropriated to Plato himself. "Think only of the truth of my words, and give heed to that." (II, p. 110). Again "I would rather die having spoken after my manner, than speak in your manner and live. . . . The difficulty, my friends, is not to avoid death, but to avoid unrighteousness." (p. 132). With a serenity that is born of divinity Socrates courts martyrdom, and if Athens had been inclined to commit a sin against Plato too he would have died as cheerfully as his master. This is the greatness of the man, and this commands our admiration. In the spirit of truth Plato is prepared to be led whithersoever the argument leads. A living relentless logic unenclosed in the iron frame of syllogisms, led him to discoveries which men long delighted in branding as unconventional and immoral, but his loyalty to truth was greater than his fear of men. Thus it is that his theories infinitely in advance of his age fell on a barren soil. It is only in recent years that his two great paradoxes of the equality of sexes and communism have been discussed not by isolated thinkers but by large masses of men as political possibilities. Even his third great paradox of the rule of philosophers (wise men) would be now accepted by all in essence. We want experts in all departments, and governments, which are the supreme concern of humanity, cannot be left to any but the expert statesmen. If their func-

tion is usurped by the tyrant or the demagogue, woe betide the state! Thus it is that there is a peculiar appropriateness in speaking of the modernism of Plato. He was the first modernist in the history of the world with the vision of a seer and the voice of a prophet, a modernist before modernism. In spirit he belongs to modern Europe, and though twenty-three centuries divide him from our age, we can hail him as a leader in the timeless democracy of truth, more than many of our living contemporaries buried in their own antedeluvian snobbish magnificence. But before I proceed to speak of Plato as a modernist, we may linger for a while on the meaning of modernism.

The terrific unrest of our own age both in politics and economics is the inevitable consequence of the historical evolution of the world. The self-centred egoism of the Greek city-states was effectually shattered by the arms of Macedon and Rome. The Roman law and the person of the Emperor gave a political unity to Europe, which has not yet been lost. Christianity cemented still further the political and geographical ties so that the combined influence of Graeco-Rome and Christianity has made it possible for us to speak of a European or Western civilisation. But the historical accident of Imperial Christianity cast the democratic religion of Christ into an aristocratic mould, and the interests of the church were identified with the interests of wealth and power. The autocracy of the church killed science and philosophy alike, but the breezy resurrection of old Greecian classics at the time of the Renaissance gave a new lease of life to culture. The Renaissance introduced a widening outlook on life, which lessened the gorgon-like glamour of the church and paved the way for the Reformation. Although the immediate effect of this great religious movement was an unrestrained absolutism of kings and princes, it familiarised the minds of the people with the ideas of dissent and revolt, and it bore fruit in the struggles between the Stuarts and the Parliament in England, and still more when the excesses of a corrupt regime produced the cataclysm of the French Revolution. In the midst of an orgy of popular enthusiasm was modernism born with the liberty and happiness of the individual as the pivot of its teaching. The course of time has but thrown into vivid contrast the extreme misery of the poor and the luxuries of the rich, and the era of the French Revolution marked the beginning of their humanity. The whole of the nineteenth century was a century of compromises, of alternate repression and conciliation of popular demands, and conciliation till the beginning of the 20th century saw labour established as a political force, and the end of the last war has made it clear that the future belongs to labour. Socialism may be a perplexing word, as it stands for so many various ideas, but its essence is to be found in a desire to be equitable, to

make life worth living for all, to introduce an era of peace and harmony. This is the cardinal faith of socialism, even though as a phase of transition a certain amount of rancour and class-war has become inevitable. If we steer clear of confounding socialism with anarchism, we cannot but find much in it that is worthy of admiration and even of acceptance.

Side by side with the revolt of labour has proceeded steadily the feminist movement, having as its goal the assertion of the complete equality of men and women. With a prophetic statesmanship the leaders of the movement first broke down the sex barriers in connection with education in all its grades. Thanks to the war, even Oxford, "the home of lost causes and impossible loyalties," has thrown open her degrees to women, and Cambridge with her more liberal traditions was bound to follow suit. In the wake of higher education has followed the feminist invasion of professions. Legislatures have recognised the political personality of women. Even the hoary institution of marriage has not been left untouched. Its weak points have been discussed and painted in vivid colours. Wife as the property of her husband, wife as the instrument of man's pleasure, wife as the household drudge, all these conceptions have been rent to tatters, and silently a great social upheaval is raging in our age. Who shall say whither it leads? Such is modernism. It is our conviction that the movement is in essence healthy, though it would have to be sorrowfully admitted that a good many of its details would be positively harmful to humanity. The reason for this discrepancy is struck by the keynote of modernism: its emphasis on the freedom of human spirit. Even modern socialism however paradoxical it may sound, is at bottom individualism. All the ideas of progress have been actuated by the desire to secure the happiness of individuals, and the permanent interests of society and states have often been lost sight of. To recognise the right of a man to work as little as possible, to recognise the right of forcibly limiting the output of even the best men, as has been done in so many trade unions, to recognise the right of a man or a woman to marry or not to marry as they choose; to recognise the right of a couple to breed or not to breed children at their sweet will—an absolute recognition of these rights is fundamentally opposed to the ideas of social solidarity and social welfare. It is here that the enormous superiority of the views of Plato comes out. He throws all the emphasis of his art on the state, and although he is as much desirous as any modernist to see the rule of justice established in the state, the conception of individual liberty is always modified by a consideration of the wider interests of the state.

We have been so far speaking of conditions in Europe and America. But our remarks implicitly apply to India and Japan as well. The

force of destiny—or shall we say the genius of science and the adventurous spirit of the West—have linked the East and the West. Movements in the West inevitably travel to the East, and modernism is budding even in our midst. The strikes of Bombay, the labour discontent of Madras, the growing sense of self-respect of the depressed classes, the awakening of our women with their social and political demands, all these are but an earnest of acute problems yet to come. We shall have to face these questions and we share with Plato the conviction that such problems can be solved only by a statesmanship based on a knowledge of humanity and the human past. Perhaps the recommendations of Plato will appeal to Indians even more than to the modern Europeans with their Christian legacy of individualism, for the former have been willing slaves of society, of social conventions grown hoary with age and petrified through inertia. It is only recently that they have been awakened from their dogmatic slumber by the new ideas of emancipation of the human spirit, which after all has been the greatest boon conferred on the East by the West. Modernism is healthy, provided we keep to some central dominating principle, which will put humanity higher than individual happiness, and not allow ourselves to run away with the minor details of a great systematic programme of human evolution.

Those who brand Plato as a visionary often seem to forget that his two great political dialogues: the *Republic* and the *Laws*, were written with an eye to the problems of his own age, which in several ways resemble the problems of our own times. Solon had laid the foundations of democracy at Athens, but it was not till the dominating genius of Pericles swayed the Assembly at Athens that the democracy flourished in all its glory. It was a democracy, however, that was the willing tool of Pericles himself. From 463-429 B.C. the Athenian constitution presented the interesting spectacle of the will of one man working through the votes of an assembly. Pericles with the vision of a statesman saw through the enormous weakness of straggling city-states, which constituted the political ideal of the Hellenic world, but which were ill-suited to meet the pressure of Persian kings with the resources of a large empire at their back. The force of politics even before the time of Pericles had produced the Confederacy of Delos with Athens at its head. The immediate effect of it was to save Greece from the domination of Persia. But the fear of Persia was by no means extinct. The confederacy still continued, and when Pericles became the leading citizen in Athens, he used the confederacy as an instrument of Athenian imperialism. Imperialism was foreign to the spirit and traditions of Greece, and hence it was no wonder that the policy of Pericles roused the jealousies and suspicions of other

Grecian states. Sparta as the traditional foe of Athens sought to destroy her power, and the Peloponnesian War was the result. The war began in 431 B.C. Pericles after a brief spell of unpopularity was once again at the head of affairs, but in 429 B.C. he died. The war went against Athens and the brilliant work of Pericles was undone. As is usual in such cases of disaster his memory suffered and democracy was held responsible for the misfortunes of Athens. Plato was born in 427 B.C. and his childhood synchronised with the anxious days of the war. He grew up in the midst of a disappointing social environment, and it was no wonder if in the midst of disasters he could appreciate neither the greatness of Pericles as a statesman nor the worth of democracy as a form of government. He grew up an aristocrat, but his aristocracy was the aristocracy of wisdom, of philosophers, who were the servants of the state in the highest sense of the term, and who were pledged to subserve the highest interests of the state. The people as rulers had been weighed in the balance and found wanting. But Plato did not forget their rights. "There are to be no beggars in the state," he says in the *Laws* (V., p. 325) and whether in the form of communism of property as in the *Republic*, or in the form of equal division of land as in the *Laws* he provided for the economic wants of his citizens, and this it is which makes his teaching in spite of its aristocratic bias so akin to modern socialism. Adopting the broad definition of socialism as given by Mr. Bliss as "that principle of society according to which the community as a whole, fraternally organised, should collectively own and co-operatively operate land and capital for the equitable good of all," we cannot fail to see how near the soul of socialism Platonism is. We cannot but adopt this view of socialism, however much the partisans of vested interests may seek to decry it as class-war or as the tyranny of the majority. The voice of labour is bound to be heard and it was heard by Plato. The economic situation in that age was as strikingly acute as it is now. Agrarian disaffection was rife, and the contrast between wealth and poverty was sought to be heroically remedied by Plato by reducing trade and currency to the narrowest limits possible. A disastrous war always intensifies economic discontent, raises the question of utilising the abilities of women even for military purposes and fosters dissatisfaction with the existing governments. In all these respects our age resembles Athens at the end of the Peloponnesian War.

It would be interesting to dwell on the most important points of resemblance between the problems of the age of Plato and those of ours. We shall briefly take up the three chief topics of labour, women and government.

I. The nightmare of economic oppression has been the legacy of the Industrial Revolution to our age, and though its cruelties have been to a considerable extent modified by the Factory Legislation, the lot of an average working class man to-day is nothing but a continual struggle against poverty and the spectre of unemployment. Socialism aims at the reduction of this struggle for existence. It fights for a living wage, which would enable a man to live in decency, to marry at the right age and bring up a respectable family. The monotony of specialised occupation has become a tyranny in the case of working men, and the growth of education has but accentuated their growing sense of weariness of life. As far back as 1848 the Communist manifesto of Karl Marx and Engels struck the keynote of revolt. "Let the ruling classes tremble at a Communistic revolution. The proletarians have nothing to lose but their chains. They have a world to win. Working men of all countries, unite." Lasalle ended his last speech with this fervent exhortation : "If I am set aside, may some avenger and successor arise out of my bones ! May this powerful national movement of civilisation not fail with my person, but may the conflagration which I have kindled spread farther and farther, so long as a single one of you still breathes." (Quoted on p. 63 in Russell's *German Social Democracy*). History will attest that the teachings of Marx and Lasalle by no means fell on barren soil. They have kindled the fires of labour unrest, as the message of their leaders often came with a note of sullen defiance. As a result of their arduous agitation, minimum hours of work, old age pensions, insurance, have all become facts in the economic world, and the demand for a minimum wage is the rage of the day.

Historians of Greece point out in unmistakable terms the perils of the economic situation in ancient Greece and thus lend a support to Marx's economic interpretation of all history. But we have nothing to suggest the tone of revolt in the utterances of ancient labour, as we find in the passionate denunciations of Kropatkin and Bakunin. Nevertheless Plato was touched by this economic distress. The existence of disaffection militated against his notion of the harmony of the state. He knew inner disunion to be the mother of all political disorders, and he conceived it to be the highest duty of the state to look after the most elementary wants of all citizens. Even in the *Republic* although the communism of property does not seem to be recommended in connection with all the citizens, but is restricted to the guardians or the rulers of the state alone it was made the duty of the guardians to look after the needs of the people. In the *Laws* he explicitly lays down that all the citizens are to get equal lots of land, and no citizen is allowed to accumulate wealth more than five times the value of a single lot. Excess of wealth and excess of

poverty are again and again branded as the two great evils, and this is exactly the idea of modern socialists. Plato's remedy of equal division of land is no longer possible to the same extent, though even now the peasant tenements of France show how much a spirit of fairness can do. But if the land problem cannot be Platonically solved, in the industries the application of Platonic principles is perfectly possible, and would be practicable, once the employers realise, as the large-hearted Owen did, that their primary function is not to accumulate wealth, which they do not know how to spend, but to develop the resources of their country so as to bring greater means of employment and greater means of comfort and enjoyment to the masses. It is important to note that in Plato the half-hearted absolutism of the Middle Ages or of the Reformation period finds no echo. Still less do we find in him any sympathy for the crude individualistic *laissez-faire* economics of the first half of the nineteenth century. Europe groaned for well-nigh a hundred years under the tyrannical shibboleth of the Iron Law of Wages and a perverse attitude of the state to the most pressing needs of its citizens. The gods of Epicurus could not have been more thoroughly indifferent to the woes of a humanity, in which the rich got richer and the poor got poorer, than the snug self-satisfaction of European statesmen in their defence of vested interests. Justice has been ruthlessly sacrificed to the theoretic *ipse dixit* of political economy. The politics of the future will have to amend the economics of the past. But in Plato politics is all along the master of economics, and the wisdom of the guardians was a guarantee for the justice of applied economics. If there is any defect to-day in the socialistic creed, it is to be found in an exaggerated emphasis on the mere economic factors of life ; mere economic considerations seem to way too much their counsels, and it is this exaggeration which needs to be softened by an application of Platonic teaching of an all round development of men in a state.

II. The woman problem is perhaps the most difficult problem we have to face. For centuries woman has been regarded as a piece of chattel. In practice she has often been the dictator at home ; in theory and in law she has been bound to obey her husband. The inequality of the sexes has been the rule in all walks of life. Given in marriage without the consideration of the desires of her own heart she has been the passive recipient of her lord's kicks or caresses as his whim dictated. The modern woman has consciously rebelled against this repression. She persists in figuring as man's equal, and it is not a mere theoretical equality she would be satisfied with. As a consequence she has achieved that equality, but an awkward situation has already arisen, and will be more acutely felt as time goes on. The economic

independence of women has brought in its train an unwillingness to marry and to face the responsibilities of a family. As a consequence the birth-rate has shown an alarming rate of decrease and the streets of Europe and America have been literally strewn with prostitutes, who at one time had perhaps in them the making of excellent mothers. Devastated families, separated couples, abandoned wives, divorced husbands are no more exceptional. Even yet advanced feminists direct their battering-rams to break down the barriers of a life-long marriage. Freedom to marry, freedom to separate, are their war-cry. In the meantime one can but wonder what about society? No writer of any standing so far as I am aware, has advocated free love, and this is something to be thankful for. Their reforms aim at making the whole institution of marriage more elastic, but in practice this elasticity may any day degenerate into an irresponsible wooing and wedding, and a stable family-life would be so difficult as to make the lot of children a fearfully unhappy one. Nowhere has the individualism of modernism had such a disastrous effect on society as the growing revolt of woman. Her loyalty to her sex has transgressed all bounds.

There is a sense of justice in so far as a woman rebels against men making of her a "mere instrument of production," or against her legal slavery to men. These have been serious defects, and they have retarded social development. We must admit her right to marry him alone whom she can love and since the ideas of economic independence have been deep-rooted in the minds of our modern women, we would admit her right to a definite share in her husband's income, as is the case in France, and we would admit her right to be a mother when she wills and consistently with her health. But all these rights depend upon her acceptance of her duty to marry and to contribute to the continuance of society. She has a right to assert her humanity, her individuality; she has a right to the application of the Kantian Imperative to her case: "Treat a human being always as an end, never as a means." But she has these rights only within the sacred sanctuary of society, and the continuance of her rights depends on the continuance of that society. Anything that injures the permanent interests of society injures the interests of women themselves. Hence it is that the feminist movement in its extreme radicalism practically amounts to race suicide, and is fraught with the greatest danger.

The woman problem in the Athens of Plato's day was not acute. The social position of women was low, but the women were so sedulously kept from education that they did not become conscious of their degradation. Even a citizen of the eminence of Demosthenes could unblushingly say that every man requires besides his wife at least two

mistresses,* and Pericles could only advise women "not to show more weakness than is natural to her sex in a great glory, and not to be talked about for good or for evil among men. †" But the position that was denied to Athenian women was awarded to the Hetairae and the education prohibited to Athenian women was welcomed with avidity in the Hetairae. The greatest Athenians did not disdain to mix with these women. Aspasia's personality is as famous as that of Pericles whom she always inspired to high deeds, and Socrates himself did not fail to admit the wisdom of Diotima of Mantinea in the *Symposium* to whom he attributes his views on love. This phase of Athenian life constitutes a most interesting and a most perplexing comment on Athenian mentality. Probably it was the great vivacity and wisdom of these stranger women that impressed Plato with the great possibilities that lie embedded in the nature of women. Thus it is that he must have come to proclaim with an unmistakable emphasis the equality of the sexes. But let it be noted by our modern women that while Plato recognised their right to occupy any position whatsoever in the state, he gave absolute powers to the guardians to compel them to marry and thus do their duty by their state. Unfortunately so far the state has not fulfilled all its moral obligations to mothers and children as Plato desired. But his ideal is not dead. A ray of hope comes from the Russia of to-day. The Bolshevik Russia is not quite as bad a place as we have been often tempted to believe, if the evidence of Mr. Goodes, the special correspondent of the *Manchester Guardian* is to be believed. "The improved conditions and pay of the workers, men and women" appears to have relieved Moscow of open prostitution and in connection with children he writes that "there is no country in the world where more care, money and thought are bestowed on the children by the Government than in Russia to-day. To the age of 17 their wants in the way of food are supplied gratis on the level of the highest category of rations. Their shows, theatres and amusements are a special care. Colonies had been formed in the country to which great numbers were drafted in the summer for reasons at once educational and psychological and the care begins before they are born." (Cf. *Capital* 22nd Nov. 1919).

We do not know how far this picture is exact, but it admirably expresses all that Plato would have desired, and with the return of normal times the much-hated Bolshevism of to-day may yet play as great a part in the regeneration of the world as the French Revolution did a hundred years ago.

* Cf. Dickinson's *The Greek View of Life*, p. 177.

† Cf. Dickinson's *The Greek View of Life*, p. 170.

III. It is when we come to speak of politics and government that *prima facie* Plato appears to have no modernist element. Democracy he despises ; it is the royalty of the ideal statesman or at least an aristocracy of a few men of virtue and wisdom that he wants. There is no doubt a good deal is to be said in favour of his views, but the whole trend of modern political development has been against him. Plato, had he lived in the nineteenth century, might have been horrified at Abraham Lincoln's extolling democracy as the government of the people for the people by the people. He had not faith in the capacity of the people at large to be the rulers, though in the *Laws* his regime tends towards democracy with wise modifications.

There is another point in Plato's politics which is of peculiar interest, since the world has veered round to his stand-point, though not without benefiting from the varied political experience extending over twenty-two centuries. True to the traditions of his country Plato was entirely in favour of city-states. Huge country-states were beyond the range of his sympathies. He would have branded them as barbarous, for he regarded the feeling of fellowship as the most important political requirement, and such a feeling is not possible in huge states. Oddly enough modern socialists attempt to set up the city-state as the political ideal and view political development as lying in the direction of increased local government.

Thus say Morris and Baxter in *Socialism: Its Growth and Outcome* (pp. 282-3) : "There should take place a gradual and increasing delegation of the present powers of the central government to municipal and local bodies until the political nation should be sapped and give place to the federation of local and industrial organisations It is becoming clear to every one that it is absurd for the central legislation to have to do with the details of life, the place of which it knows little or nothing. Instances of such cases will keep on multiplying, until it will be found that the centre has nothing to do herein, and the interest in it will be then transferred to the localities." Bliss in his *Handbook of Socialism* (p. 9) has the same tale to tell : "All socialists are working for the decentralisation of government. They wish to transfer functions from the central governments to local political units in order that the business of the people may be near the people. County councils, local government bills, are supported by all socialists." The enormous growth of work in central legislatures necessitates a devolution of work on local bodies and thus gives wider opportunities of political work to people at large. It was the aim of Pericles to make every citizen take a living interest in the affairs of the state. It was his proud boast that Athens was the school of Hellas, and in his famous

oration he is reported to have said: "We alone regard a man who takes no interest in public affairs not as a harmless, but as a useless character." These ideas of Periclean democracy may not have been accepted by Plato in their completeness, but he too regarded the state as a community of friends, and hence kept to the ideal of a city-state. But the political danger of being swamped by a larger state was very imminent in such cases. It was therefore well from the stand-point of humanity that the ambition of Philip of Macedon and Alexander the Great brought the whole of Greece under a common domination which made the spread of Hellenic culture a living reality. Such a breaking-up of the city-state was essential before a really free corporate life in cities as in local government to-day could become possible. The municipal government of our day is freed from the responsibilities of wider political problems and hence can give a more concentrated attention to their peculiarly intimate problems of civic life. It is in this direction that we are moving and the socialists are welcoming the change. But it has to be noted, in spite of what some socialists may say, that this development would be healthy only in so far as the cities are not completely isolated from each other, but are mutually interacting units of a larger political whole, which we are accustomed to speak of as the state. Isolation was the weakness of Plato's city-state, and if we drift towards it we shall be merely reintroducing the limitations of ancient political life. But historical force and scientific discoveries have made political isolation for weal or for woe an impossibility in our age. There is no doubt that the hundred and twenty-five years between the French Revolution and the last war have been the most surprising in the history of humanity. The very novelty of problems has unsettled the minds of men, and the problem of making the masses fit members of a democracy has given a great impetus to economic and educational reconstruction. Herein lies the interest of Platonism as the grandest individual attempt to shape a new society. The rapid advance of socialism has quickened the conscience of statesmen to an appreciation of their responsibility towards the masses. Politics is no more a question of merely protecting life, liberty and property. It has become a question of furthering life, liberty and property. An extension of franchise, and the right to minimum wage mark the death of the old *laissez-faire* regime, and signs are not wanting especially in America to show that the legislation of the future will be on eugenic lines and thus achieve as a fact one more dream of Plato.

This brief review of Plato's suggestiveness in respect of modern problems has already introduced us to some of the chief Platonic notions, for these are the leading modernist elements in Plato. But before

concluding this essay it would perhaps be fair to have our attention drawn to some of the prominent non-modernist elements in Plato.

(1) To modern consciousness nurtured in the traditions of the French Revolution nothing in Plato comes with such a rude shock as his justification of slavery as a natural institution. It is a weakness in Plato, but it need not be unduly exaggerated. Slavery in ancient Greece was after all not so bad as in the nineteenth century America. In the polity of Plato only those who are by nature inferior and fit only to obey are to be slaves. People of this inferior calibre would thus at least be fed and clothed. Moreover the existence of slavery made the cultured ease of Athenian gentlemen possible. In return the slaves were treated well and even as the confidants of their masters. Plato in the *Laws* recognises two kinds of slaves: good slaves who are "better in every way than brethren and sons" and slaves, who cannot be trusted. Even these tend to become brutish only when they are cruelly treated by their masters. But at its best slavery is a degradation of humanity. The possibility of having kind masters cannot make up for the debasement of a human soul that is inevitably involved in slavery, and hence from the modernist point of view it is absolutely unjustifiable.

(2) Want of toleration is a notorious trait in human nature. The spirit of toleration is barely two centuries old in Europe and even yet it does not hold as a universal trait. It is an irony of fate that Plato himself, who was so daring and unconventional in his own speculations as to be in the front rank of those immortal "rebels" who make history, should yet have been singularly devoid of any desire to tolerate those who had the misfortune of disagreeing with him. His discussion of poetry and arts in the *Republic* is vitiated by a fundamental misapprehension of their nature, and his banishment of poets from his state can only be regarded as an aberration of a great intellect. Fond of quoting poets to illustrate or to refute, he yet regards them as a band of useless fellows, who can only imitate nature. Poets are allowed to stay in the state only on sufferance. Before publishing anything they have to submit their writings to the appointed judges and guardians of law. A similar want of toleration is noticeable in his picture of religion. Religion with him is not a matter of heart, it is essentially something that is imposed by the state on the citizens, which they have to submit to without demur. No truly modernist regime would ever dream of having a censorship of opinion or would care to foster a religious spirit in the swaddling clothes of a compulsory religion.

(3) The last non-modernist element is the perfectly irresponsible autocracy of the guardians, which chalks out the whole path of the lives of citizens. It is so thorough as to be irritating, and Plato's citizens

out of sheer tedium may be tempted at times to give a loose reign to their passions! But it would have to be admitted that this autocracy in Government is a logical development of his view of the functions of the guardians.

In an impartial study of Plato the existence of these non-modernist elements would have to be frankly admitted. But these defects do not in the least detract from the general grandeur and modernism of his philosophy. His dialogues are an undying reservoir of inspiration and thought to the thirsty soul who wanders about in the quest of knowledge. The thoroughness of his work, the logical conclusions, the superb imagery of his myths, the stately march of his dialogues, and above all the sterling worth of his moral sincerity and moral purpose, burning to evolve a better humanity, all these factors constitute him the most fascinating figure in the whole range of European philosophy. His works are the living repositories of great truths, not a museum of antiquarian beliefs, still less a tomb of dead thoughts. In his dialogues we can catch his voice, and we feel as Milton pictures Adam feeling when the angel had ended:

"So charming left his voice, that he awhile
Thought him still speaking, still stood fixed to hear."

A. R. WADIA.

THE IDEA OF GOD IN THE VEDAS.

INDIAN philosophical thought begins with the Vedas. It is therefore necessary that we should investigate the conception of God suggested and developed in the Vedic hymns. The first problem that presents itself for solution in an enquiry of this nature, is whether the Vedic hymns suggest a monotheistic or polytheistic conception of God. The need for a definite answer to this question becomes all the more important when we consider the diversity of opinion on the matter. Patriotic Indians regard it a duty to uphold the former view; but there are good reasons which point to the contrary alternative. Professor Max-Müller has sought to mediate between these extreme views by suggesting that the Vedic religion might be best described as Henotheistic or Kathenotheistic, by which terms he means a conception of God which while admitting a plurality of deities, yet maintains the monotheistic atmosphere by extolling each one of these gods in turn as the highest of the group. Let us consider each of these views in detail.

Monothelism.—(1) A case is sought to be made out by partisans of this view by pointing to the fact that the minor deities described and often-times made the merest mention of in the Vedic hymns are not independent deities but are personifications of the many qualities with which the poet seeks to invest the One Supreme Principle of the Universe. Commonness of characteristics of several of deities is regarded as a further proof of this contention. Oftentimes a number of these gods are addressed as one, and common functions are attributed to them. Such indefiniteness of outline and lack of individuality are intelligible on the supposition that these vaguely described deities are various qualities of the One Supreme God. This explanation of the matter is borne out by the later developments which this conception underwent at the hands of the Upanishadic writers. The Upanishadic *Brahman* as the all-pervading principle of the universe is undivided and unitary. This latter idea has its origin in the monotheistic conception of God suggested by the Vedic hymns. (2) It is further pointed out that the conception of Varuna is the nearest approach to monotheism. He is regarded as the originator and maintainer of the universal moral order or *Ritha*, the punisher and protector of whoso breaks or maintains this order. It is one of the fundamental characteristics of monotheistic

religion that God is regarded as the Holy One and as supremely interested in the conservation of moral values. Indeed, a modern philosopher of great repute has said that all religion is concerned with the conservation of the human values; but whether this is an adequate definition of the term or not there can be no denying its adequacy and appropriateness where monotheistic religions are concerned. If we might go upon this criterion, there is certainly some point in the contention that the conception of Varuna is the nearest approach to monotheism. He is proclaimed as an Omniscient God who is the punisher of evil and the protector of virtue. "Varuna true to holy law sits down among the people, he most wise sits there to govern all."

This in brief is the contention of some writers who are anxious to make out that the Vedic religion is monotheistic in its nature. Doubtless, the arguments are plausible and presentable enough, but they do not appear to be anything more than that. The point that is most pressed into service is the indefiniteness of delineation, which is regarded as pointing to the attempt of the poet to invest the deity with qualities of the nature of which he has but a vague inkling. With this diagnosis of the matter we disagree; for the symptoms on which the diagnosis rests might quite as well be interpreted as pointing to a polytheism in decay. There are other circumstances which strongly endorse such a diagnosis. We might give a direct lie to the hypothesis that the descriptions of various gods are symbolical of the qualities with which the poet wishes to invest the deity. Nothing could be farther from truth than this; for the Vedic bard does not regard any one of these gods as secondary or subordinate to any others. Each in his turn is spoken of in terms of most extravagant laudation and as capable of unlimited good or evil to the devotee that pleases or offends. Waiving aside so gross a misreading of facts we might yet take our stand on indisputable statements which go to corroborate our diagnosis of the matter, *viz.*, that the Vedic religion is a polytheism in decay. In one of the verses the bard is represented as offering to sell Indra for ten milch cows,—an impudence which in an age of faith and religious devotion is inconceivable. Again, there are verses in which the poet prays for faith and religious peace. Now, a prayer like this, as Professor Deussen observes, is symptomatic of the religious decay of the age in which the poet lived. Men do not ask for faith and peace unless there has been a steady decay of the religious spirit.

The second contention that a conception like that of Varuna is indicative of a monotheistic faith, is very plausible as well as defensible. It is undoubtedly true that the Vedic religion would have developed into a monotheism like that of Christianity or Mahomadanism had the bards

followed up this sublime idea of Varuna, but this was not to be; for this idea was let slip. With the entry of the Aryans into the Gangetic plains their imagination was caught captive by the august and the awful and the sublime, and so the Vedic religion took a polytheistic turn. The grand conception of Varuna as the sustainer of the moral order gradually yielded place to the more secondary deities, till at last Varuna becomes an unimportant and scarce-mentioned god of the waters. This gradual disappearance of the idea marks the decay of the monotheistic elements in the Vedic religion and the growth of a phase of thought which culminated in the Upanishadic Pantheism.

Having thus specified our points of divergence from those who believe that the Vedic religion is monotheistic, we shall now consider the view which has been suggested by Professor Max-Muller as a kind of mediation between those who regard the Vedic religion as monotheistic and those who prefer to think of it as polytheistic. His point is that each one of the gods is addressed in turn as the highest and none is regarded as less than any of the others. This, in the judgment of Max-Muller, clearly points to the fact that the Vedic bards had at the back of their minds the conception of the One Highest who manifests Himself in different forms. All the Vedic gods are different manifestations or names of the Supreme. If this view be right, the Vedic religion cannot with justice be regarded as polytheistic: it must then be called, if it is not an abuse of language to pair contradictory terms, a mono-polytheism. With this view, however, we cannot agree; for it is very plain that the Vedic bards never had any such conception as of the One Supreme. It is true that each of the gods is proclaimed in turn as the highest; but that only confirms our view that the Vedic religion is pure polytheism. The *One* is not extolled; but rather the *Many*. There is a hymn in the Vedic books which reads as follows: "Not one of you, ye gods is small: all of you are verily great." Here it is evident that the *All* are extolled and no mention is made of the *One*.

Professor MacDonald dismisses Muller's suggestions on slightly different grounds. He points out that the gods are often described as interdependent and are introduced sometimes in pairs. There is not a shadow of a proof to suppose that the poet considers the *One* as the Supreme; rather there is every evidence to show that these gods are interdependent and have common characteristics and functions.

We have briefly set forth our objections to the two views that we considered. It is now necessary to state our own position in somewhat greater detail. Vedic religion, we said, is a polytheism in decay. The indefiniteness of delineation, the overlapping of functions, the haziness of characteristics are some of the points which might be cited in con-

firmation of this view. The decay of the religious spirit and the yearning for faith are further evidences of a deteriorating polytheism. And it might be expected that this slowly dying polytheism would yield place to a monotheistic faith. But this was not to be; for other influences were playing upon the Aryans which in a great measure determined the course of religious and philosophical thought. It will be remembered that particularly at this time the Aryans emigrated into the plains of the Indus and the Ganges, and this change had a vital effect upon their religious outlook. The wonderful natural phenomena in these new regions came to be regarded as the habitats of their deities or personifications of natural forces. The universe is portioned out into three regions—Heaven, Intermediate Region, Earth—and various deities preside over these parts. But the gods are no more than personifications of natural forces, lacking that humanity and definiteness characteristic of the Greek pantheon. In other words, they are not personal. The Rig-Vedic gods are not yet human like the Greek gods, though they are regarded as sharing in human feelings and the affairs of men. But this fact should not blind us to the circumstance that they are essentially personifications of natural forces and no more. They tend to assume human forms; but as they are, they might be described as in a state of "arrested anthropomorphism." We have then distinctly to deal with a polytheistic religion charged with a strong undercurrent of pantheism. Only on this explanation can the later Upanishadic developments be intelligible. The decaying polytheism of the Vedas, far from developing into a monotheistic faith, prepared the way for a system of thought and outlook which was characteristically pantheistic. By the Upanishadic period, the theistic elements of the Vedic faith had entirely disappeared, yielding place to an uncompromising monism.

Some characteristics of the Vedic Religion—Having indicated our general attitude to the Vedic religion, it may now be necessary to state some outstanding features of that faith. We might at the outset remark that the Vedic gods are for the most part kindly. There are exceptions like Rudra, Varuna, and the Adityas. Rudra is held in awe as the annihilator of the world and Varuna is reverenced as the maintainer of the moral order. Both of these gods are held in great respect; but their anger can be placated by sacrifices and the performance of the ritual enjoined in the Vedas. Furthermore, Varuna and Rudra are in the background and do not hold so important a place in the Vedic pantheon as Indra and Agni; for out of the thousand and more hymns of the Rig-Veda only twelve are addressed to Varuna.

Indra is *par excellence* the God of the Vedic devotee. He is the deity to whom the poet recurs with eternal freshness and on whom are

lavished all the praises which a rampant imagination might suggest. He is the bravest among the brave! he is kindly, great, victorious, and— tipsy. The *soma* juice is the offering that he best loves; and woe unto the devotee who is niggardly in his gifts. There is no surer way of calling upon oneself the anger of the gods than by negligence in the matter of sacrificial offering. Indra might be taken as a typical example of the Vedic gods. Now this description suggests a few points which it would be worth while pausing to consider. We have already said that the Rig-Vedic Gods are for the most part kindly; and if Indra might be regarded as typical of those deities, then we have a further corroboration of the view. It is also fairly evident, that these gods are not regarded in that enthusiastic and almost filial attitude with which God is spoken of in the New Testament. Indra is not thought of as the *father* of the people, but as a benign and indulgent king who has the welfare of his subjects at heart. He is not the tyrant to whom tribute is given in fear and trembling, but the indulgent ruler who loves his subjects and protects them from aggression. The Vedic Indra is like the Jehovah of the Hebrew religion, a great and august ruler who unweariedly watches over his people and is bound to them by ties at once sacred and irrevocable. Of course, the analogy ought not to be pressed, for it breaks at a most important point. Jehovah is spoken of as the Holy One of Israel on whom sinners cannot look and live. He is the pure “one who desireth not sacrifice, who delighteth not in burnt offering, but whose sacrifices are a broken spirit and contrite heart.” The same cannot be said of Indra; for he delighteth in sacrifice and his favours to the devoted are in direct proportion to the gifts which he is offered. It might, indeed, be said, as it was once done in a class-room, that ‘bald commercialism’ is the basis of the religion of the early Aryans.

(2) There is yet one other feature, regarding which a word or two need be said. The Vedic religion as contrasted with the latter-day faith of the Upanishads, is characteristically optimistic. The Vedic bard is not oppressed by the ennui of life—by the harassing sense of the transitoriness of life’s best things and by that longing for perfection which is the keynote of Upanishadic thought. The problem of evil has not dawned upon the intellectual horizon of the poet and he takes life as he finds it—in all its joyous beauty, in its touching simplicity, in its buoyant enthusiasms. He is in regions flowing with milk and honey, where minimum effort brings him maximum of earthly goods. He has no formidable external forces, either human or natural, to conquer and subjugate. The sun rises in all his glory and matures under his mellow beam the harvest and the vintage; the rains descend from heaven and

beautify the fertile plains with golden corn ; the rivers flow on in heedless majesty and man and beast are secure of food and drink ; there are the blue hills far away where the flock are browsing peacefully ; and above all these, there are the gods of their fathers—Indra, the slayer of Brithrasura, the bringer of rain ; Surya the source of light and heat ; Prithvi, Agni, Soma the gods of the Earth—who watch over their votaries and keep them from harm. What cause then for discontent ? Sadness and gloom is not for such as these—rather the prayer is, “ Make me immortal in that realm where they move as they list ; in the third sphere of inmost heaven where worlds are full of light.” The law of Karma with all its ruthless rigour and relentless determinism has not enclosed their lives in its slowly contracting, iron circle. The life after death is not conceived in spiritual but grossly material laws ; for it is thought of as but a continuation of the joys which we experience on this side of the grave.

This optimism, however, could not, and as a matter of fact, did not last long. Even so early as the period of the Atharvana Veda we see the grisly monster peering from behind the screen. It is possible that the sorcery and magic of the Atharvana Veda existed in the Rig-Vedic times ; but the Rig-Vedic bard has for the most part ignored them. He can think of nothing but the beautiful world outside and the great gods guarding his flock and protecting him from all manner of evils. It is only later, probably by association with the aborigines, that he comes to think of unknown evil influences surrounding him and causing him disease, destruction, and death. And out of this fear grows up an elaborate system of *mantras*, incantations, etc., calculated to guard against these evil forces. But these safeguards are in time found inadequate ; for each time they were averted, they arose in a new form. Ultimately, philosophy was called to aid, and in the Upanishads we have one of the sublimest and most consoling human attempts to solve the problem of pain.

B. V. NARAYANA REDDI.

THE CONTACT OF INDIAN ART WITH THE ART OF OTHER CIVILISATIONS.*

II

IN INDIA.

SELF-DEFENCE is a reaction of the living organism against irritating or destructive intrusions from outside. Without assimilation on the other hand life cannot maintain its existence. The two processes act upon one another and keep the individual vigorous. Their balance depends upon the strength inborn in the individual. Artistic production as a living organism is obedient to these two laws. But the meaning of self-defence and assimilation as applied to art needs explanation. India, for instance, sending out her works and traditions of art to East and West was free from either activity. There it gave itself away to any context it entered, and far from assimilating new suggestions it accumulated them and carried them on from country to country and from century to century. For Indian art there was no longer immediate expression of an inner experience, but it lived on its past and used it as a store from which convenient formulae could be drawn. It had become petrified in the service of religion and commerce and needed not the protection so necessary for growing life.

The earliest art we meet with in India is that of the Asokan age. At that time it is already fully matured so that its early history remains veiled by ages and its movements lie hidden under the cover of an unknown past. The science of the creative genius and its work is new. Laws and periodicity are not yet established, yet as far as from a comparative study can be judged, it appears that the art of every cultural unit is open to extraneous influence either in its early infancy, when to the groping spirit, who wishes to express himself, every form wherever it comes from is welcome for that purpose, or again after complete self-expression is reached and fatigue has overcome intuition. At that stage again foreign forms are appreciated and accepted, though they cannot rejuvenate the senile body of art, and a fresh impetus from within is needed to start anew the game of self-defence and assimilation. This periodicity may be verified from the evolution of Greek art for instance, which affords the best example as its beginning, its height and end are

* As announced in the foot-note on p. 312 of the Magazine, December 1922, the second lecture is reprinted from the *Calcutta Review*.

fully known. In the early stage Mediterranean and Asiatic conventions supplied the stock of forms to an imagination which had not yet grown sure of its own trend. But after these external helps were assimilated and digested sufficient strength was gained for self-defence against a repetition of a similar invasion and Greek art from the 6th to the 3rd century B.C. attained its national form which after having exhausted almost all resources looked round to the same funds, which it had used centuries ago, but neither freshly imported subjects nor forms could stop its decay.

The case however of Greece is extraordinarily simple, for there one well defined mentality, we may say one creative individual, had lived its life. The evolution of Indian art however contains many artistic individuals and what to the one may have the meaning of death reveals itself with regard to some other as the beginning of new life. But this vicariate of creative unities and personalities is not peculiar to India, and the same rule is valid for Europe in its entire artistic productions. The marks of beginning or end are set in every case by the dynamic power of artistic creation inherent in the single national units. Indian art thus passed through three critical ages, the Asokan and post-Mauryan age, the time of the Moghul Empire and the present moment. It goes without saying that apart from these well marked periods of foreign contact some minor motives linger on and ooze down to the devices of popular art and cottage industry, where they remain in the vocabulary of domestic crafts throughout the centuries of its existence. In this way we find for instance some animal patterns as those of the heraldic two-headed bird or fish-tailed human figures as devices known to the textile arts all over Asia, Egypt and Eastern Europe and this early Asiatic art cannot definitely be traced to one centre only, though the Persian was apparently the most distinct. The immortal Akanthos of Greek origin on the other hand occurs at times as a border on late medieval temple banners in Ceylon and the same device is to be seen on semi-Europeanised Bengal village architecture, where it seems difficult to decide whether its use is due to a more recent importation or whether it lingered on as one of the hereditary motives of the unwritten grammar of domestic crafts. But we shall leave those unessential details aside, and start from the beginning where mighty stones tell their message in discordant tongues.

The lion capital from a broken pillar at Sarnath is witness of a complex artistic process. Four lions there are united into an all-round pattern round the elongated shaft of the column. They rest on a round plinth where four wheels of the law are circumambulated by various animals, the elephant for instance and the buffalo. This pedestal with

its load is superimposed to a bell-shaped flower-like bulb. The structure seems organic because it is powerful enough to overcome two discordant plastic principles. The one is the modelling of the lions' bodies, that is to say, their artistic physiognomy. The other is the way how the bodies are combined in the round and how this all-sided form is linked to the rest of the capital.

The striking feature of head, mane and legs of the lions is their distinct precision. How the face is kept apart in sharp line from the mane and how neatly but also how abruptly the mane ends on the legs! Inside the clear confines of every essential part thus formed an equally precise, sharp and abrupt modelling distinguishes forehead, cheeks and snout, while the eyes, moustache, teeth and mane are articulated by minute and independent single shapes. Legs and paws show the leading features of this kind of sculpture in the most convincing way. Muscles and bones are firmly marked by high ridges and an interjacent channel, and each single tendon and joint of the toes is as boldly represented as the carving of the claws is minute. The effect of this plastic treatment is a vigorous naturalism which perceives the living form as strained by force and effort. No lassitude but also no softness is in these abrupt, strained and firm limbs.

Compared with these lions the animals of the plinth are tame and gentle beasts, whose trot is full of swiftness and lyrical tenderness. Yet their modelling is carefully articulated with regard to joints and muscles although it is obvious that the fleshy part is no longer hard and strained, but has that healthy roundness which betrays life at ease. The outlines of these animals in relief though characterising every smallest peculiarity, are as a whole continuous so that they can be followed by our eyes in one uninterrupted gliding movement. If now it has to be decided whether the structure of the entire capital follows the artistic principle as incorporated in the lions on the top or that which acts in the animals of the plinth, the answer can be readily given. For one uninterrupted line glides over the angular profile of each lion and links it with the curvature of the chest bedecked with mane, and curves from there in a negative way along legs and pauses in order to embrace in a mighty bow the angle built by the plinth. From there the complete succession of curves is repeated all over the floral capital in a more compressed and more emphasised manner. Thus it is established that the structural conception of the capital coincides in its continuous rounded outline with the plastic treatment of the animals on the plinth—while that of the lions in its abrupt tension stands apart, though it is included in the general scheme.

Keeping in mind that this capital belongs to a pillar set up by

Emperor Asoka and thus represents an official work of art or a work of court-artists, we shall analyse the contemporary sculpture which has a more intimate character. The well known early figure of Yaksha shall be the starting point. The minute analysis of these early Indian works may seem tiresome yet in this way only exact knowledge can be gained once for ever whether, how far and in what respect Mauryan art and henceforth the whole of ancient Indian creation was indebted to or dependent upon Persian form. No inscription and no written record can fully reveal this connection. The monuments themselves have to be consulted and they unravel their secrets to the observing eye. The animal representations on the top of the columns excepted, we do not hitherto know of any other contemporary sculptured animals for comparision. But this is irrelevant for we are not concerned with the subject represented, but with the way of plastic treatment. Any contemporary sculpture whatever be its subject will throw full light on the actual situation.

The Yaksha figure shows a fully developed modelling in the round. Is it the same as that of the lion capital from Sarnath? Head and arms and legs obviously are isolated from one another by sharp accents. Necklace and belt are treated as independent plastic bands laid over the modelled body. In so far the two sculptures under consideration fully agree. The naturalism also of the Yaksha figure is not less conspicuous than that of the lions. And yet the effect of the whole figure is entirely different, for every detail of it is shaped by a new kind of life. The treatment of the legs for instance, makes them appear smooth and rounded. Neither the knees nor the ankles are accentuated, but one organic movement in the round moulds them into shape. The plastic details on the other hand as for instance ribbons and ornaments are, in spite of being well marked within their confines, subordinated to the main modelling of the body which they accompany and emphasize. They have no value of their own and if taken from the body their curves would lose all sense for they do not belong to them but reflect those of the body. The curves of the lion's mane on the other hand even if imagined apart from the lion retain their significance for they have a plastic volume and movement of their own. The main difference in the artistic treatment of the two sculptures amounts to an abrupt, isolated and strained modelling on the one hand, and a flowing and therefore connecting and relaxed modelling on the other. Either of them however goes in the round with the difference that within the style of the lion-treatment every part whether important or subordinate is treated equally as fully three-dimensional volume while within the style of the Yaksha figure only those parts deserve a modelling in the round, towards which chief attention has to be directed. In this way the subordinate

parts emphasise those of greatest importance and this principle of sub-ordinating extends equally over accessories as for example hair, dress and ornaments, and the sides from which the figure has to be seen. Thus front and side view give an impression of bulky roundness while in the case of this Yaksha figure—the back view appears flat. This peculiarity however cannot be generalised into a statement that Indian art within its own resources is unacquainted with sculpture in the round and treats its statue as a kind of two sided relief. Other early Indian statues, the Yakshini from Patna for sample, exhibit a view as fully rounded as the corresponding front view. In fact hair, back, scarf and *sari* display a plastic animation which by its asseymetrical arrangement has more charm than the symmetrical rigidity of the front view. Moreover the slight bend forwards of the back view from the hips onwards suggests the alert movement of a youthful walking body while the front view merely stands in solemn symmetry. In every other respect, however, the Yakshini figure belongs to the same conception of form as that of the Yaksha. The difference between the artistic treatment of those two figures shrinks down to almost naught, if the cubic form peculiar to the lion capital is compared with.

Derived from the same source of plastic form are some of Yakshini figures from Barhut. There, however, they are made to recline against the octagonal post so that only the front view is visible. But even then the plastic treatment remains that of a sculpture in the round.

In sharp contrast to this Yakshini figure stand those of other Yakshas and Yakshinis, Nagas and Naginis from Barhut. The relief panel representing Kuvera, one of the most accomplished pieces of Barhut sculpture, is governed by that smooth flatness of the modelled form which remains a leading feature of Indian sculpture up to the Gupta age. Still the treatment of the Kuvera figure from Barhut in all its novelty is implicitly contained in the Yaksha figure from Parkham and the other statues belonging to that class. The relation of the accessories to the bare body has remained unchanged while the flowing modelling has become emphasised. But now indeed the whole figure appears as if compressed between two plates of glass, and that this flattening is achieved with full artistic consciousness is proved by the violent, and from a naturalistic point of view distorting turn, given to the hands joined in adoration and to the right foot turned outwards at the knee like that of an expert dancer.

The information which these early Indian sculptures furnish us are of greatest importance. We learn that Indian art at the moment when we make its first acquaintance, passed through an artistic crisis. It had reached the height of one artistic evolution and was just on the way to evolve a new trend.

The old tradition is represented at its best in the Yakshini figure from the Patna Museum ; the new trend has found pure expression in the Kuvera figure from Barhut. This critical age through which Indian art passed extends over the rule of the Maurya and Sunga dynasties. It was the natural evolution of a strong and mature art which changed its form according to the prevalent mode of new generations. But without going into hazy interpretations, so much can be said that approximately one century brought about an evolution from the full, heavy and stabilised form modelled in the round, to the flattened, supple and flowing plastic. In either of them, however, continuity of an unbroken outline was the predominant feature.

At this critical moment and just at its opening another mode of artistic expression sets in. Its best representative is the lion capital from Sarnath. There we find a strained and stagnant cubic form as peculiar to the treatment of the lion quartette, while the plastic treatment of the animal frieze in the plinth, though it shares the vigorous tension with the lion capital, yet has become subordinated to a flowing and continuous outline, just as the structure of the whole capital is obedient to that flowing line. The only discordant feature therefore is the abrupt and vigorous modelling of the lions which stands in strong contrast to the smooth and flowing treatment of all other forms whether fully modelled in the round as in the earlier examples or flattened as in the later type, which may be called the Barhut style. This fundamental difference testifies two different kinds of nervous energy of the artist's hand. It also denotes a different attitude towards the outside world ; it signifies an altogether different perception of nature. The one, that of the lions, is bold and energetic and laden with physical strength ; and accordingly those aspects of the visible world attract its greatest interest which are full of nervous vigour, bold, strong and commanding. The other treatment of the following modelling is harmonious and without effort and those attitudes and forms of nature therefore are dear to it which suggest a harmonious play of forms at ease. The one means strain and the other repose, the one emphasises flesh and bones and the other suppresses both. The one sees and creates the living form as compressed into the forceful tension of one second of strained energy, the other feels and shapes the living force as a state of an all-pervading movement which is at rest within its own activity. What lies at the root of this difference?

It is conspicuous that the animal figures which crown the various capitals of Asokan age are treated more or less in the same way. It further deserves notice that where similar animals are introduced in the gateways of the railing at Barhut or at Sanchi they have lost the vigour

of brutal bestiality and have turned tame and gentle, though clumsy, animals. In no other connection, however, do we meet with this kind of artistic treatment, while that of the liquid modelling abounds in all works of this and of the successive periods of India art. The Yaksha-treatment thus is entitled to be called purely Indian, while the origin of the lion-treatment has its parallels and ancestors in Mesopotamia, and this connection, apart from being obvious through the similarity of form of ancient Assyrian sculpture, is also testified to by history. The hunting scenes for instance, the animals from the palace of Persepolis exhibit a muscular strength, a tremendous vital vigour in movement even when at rest. The gulf which separates the early Assyrian prototypes from Asokan art in India is bridged over by Asoka's rock inscriptions, which were inspired by Achæmenian rock inscriptions as found in Bahistan and elsewhere. The sculpture therefore of the Asokan pillars is indebted to Mesopotamian art. These pillars however are works of court art and this being dependent largely on the will of one person, are freed from the necessity of creative form, as peculiar to national genius. For in their case it is not the subconscious and therefore inevitable intuition of the artist, who is brought up in the tradition of his country, which is at work, but the artist has become a tool in the hands of a potentate who imposes his will on his employee. And it also may be that he calls foreign artists into his country to work according to his wish. The question, however, as to the nationality of the artists who carved Asoka's pillars and capitals must be answered thus. Design and outline, that is to say the structure of the capitals, are Indian. With regard to the plinth of the Sarnath capital it appears that an Indian hand endeavoured to work *a la Persian*, though more or less freely, while the crowning part, the lions, either represents a careful attempt of Indian artists to work in the desired fashion or else it is the work of Persian craftsmen called to India specially for this purpose. The Persian influence therefore in Asokan art is restricted to the capitals of the columns. Forms of art however carry some germs of contagion with them, and so capitals which pretend to be more or less after the court fashion, occur in Barhut and Sanchi in a somewhat childish and clumsy translation, while the various winged monsters and combined animals which assemble so joyfully round sacred altars appear as Indian children of Mesopotamian or more likely Pan-Asiatic parentage. The Persian element in Asokan art thus is born in and vanishes with Asoka's court. This is the only trace of foreign devices in Indian art of that age and in spite of Alexander's conquest of Bactria, no trace of Greek art whatsoever can be discovered in pre-Christian time.

The Persian way of modelling disappeared quickly. The succeeding

attempt of Hellenistic provincial art to intrude on India did not meet with more success. Gandhara as a province of art represents a local centre, a melting pot so to say of Hellenistic, Iranian and Indian forms, and the question is whether and how far the Hellenistic element entered the stock of Indian form. We must, however, assume two entrances for the import of Roman Hellenistic forms. The one from the Nort-West frontier and from there it reached as far as Muttra. The other on the sea way from the South-West where the port of Barukacha was a trading centre with the Roman empire. From there Græco-Roman forms reached most probably Amaravati (on the Kistna).

The import of Roman arms was caused by reasons other than those which brought Achæmenian forms. The Græco-Roman forms came along with traffic and commerce and so they were spread over distant monuments. But their effect on Indian art was as ephemeral as that of the Mesopotamian devices in Mauryan art. No praise has to be spared on the magnificent Akanthos ornaments of Amaravati. The fact that they are of Greek extraction is denoted by the name, but their vitality is as Indian as that of any lotus flower. Apart from the Akanthos device no pattern bears any resemblance to Greek form and the so-called honey-suckle is neither an Assyrian palmette nor a Greek floral motive. It is one of those uncounted Indian devices which have not yet received a name from students of Indian art. The modelling of the human body on the other hand derived relatively stronger impetus from the treatment as practised by Græco-Roman artists. But here it is almost edifying to watch how the conventional dullness of the Gandhara academy becomes quivering with the delight of youth and suppleness. The Mathura school of sculpture which is remarkable for its triviality of vision and for its lack of originality is satisfied with, and concentrates on, the sensuous charm of forms of this world, and so naturally forms of the Greek type had an allurement for this indigenous school. The early work from Mathura stands stilistically in one line with Barhut, with the difference that it consciously exhibits the forms of the human body while in the Barhut school they are accepted as a matter of fact and do not receive special emphasis. Thus the Greek sensitiveness to the softness of skin and elasticity of the flesh were welcome to the school of Mathura which embodies Indian plus Greek sensualism. The proportions of the figures however with long waist and short legs are decidedly non-Greek, and the *softness* of this naturalistic modelling is also a contribution from the Indian side. The Mathura school was a second-rate branch of Indian art ; but not because it admitted Hellenistic connections into its own repertory of form ; it did so, because it had not a self-reliant imagination.

The whole atmosphere, however, is changed in Amaravati. There the pliable and intensely moved modelling is Indian, though some faint flavour of Greece might be tasted. The school of Mathura thus stands for a compromise of Hellenistic and Indian form on the basis of an uninspired sensualism, while Amraoti in the 2nd century A.D. by digesting the imported Greek stuff achieves a perfection of its own which may be seen in Indian purity at the early parts of the railing. With these two schools Hellenism in Indian art disappears as thoroughly as did the Persian element in post-Asokan art.

These two factors, the Persian and European, make their appearance once more at the time of the Moghuls. It is however worth-while noticing that artistic traditions of no other country had any contact with Indian art in India. Egypt is out of question, but China, which must have reached its artistic height and stood at this time in close commercial and religious relations with India, left no trace on Indian art in early medieval times. For just at that period India was the giving part and was so full in its wealth that no room was left to any for intrusion. The situation changed only from the 16th century onwards, when the Moghul rulers desired to establish an international court art. For almost two thousand years Indian art thus maintained its integrity. At the beginning and at the end of that period the admission of foreign forms was due to the desire of the rulers with regard to the Persian element, while Western features entered Indian art almost at the same time, in the earlier case uninvited yet called for by the Moghuls. The Moghul art painting is an official affair just as were the capitals of Asoka's columns. That sometimes idioms of Moghul painting also occur in Rajput pictures is no wonder as the two schools were so near in time and space.

In order, however, to realise to what extent and in which combination the Indian, Persian and European traditions of painting got fused in India it will be necessary to define the leading features of the three components. The Chinese factor has to be left aside, for although several Moghul paintings are not only influenced, but practically painted *à la Chinese*, and although even Rajput art, for instance the frescoes from Bikhaner, exhibit Chinese elements, it was not the Chinese method of painting which was accepted, but Chinese motives entered the confines of Indian art and were rendered there in the Indian way. Moghul art on the other hand is conspicuous by the versatility of pictorial methods employed. The European, the Indian and the Persian principles of painting intermingled in the brush of the Moghul Court artist.

Contemporary and pure Indian painting as represented by the various Rajput schools has to be examined first. It relies on the effective

contrast of coloured surfaces which are made distinct in bold outlines. Pavilion and men, sky and interior of the houses, action, movements and architecture are laid into one severely observed plan, and the eyes of all the figures have to obey the same rule. Colours and outlines are the only means utilized in this kind of painting. The colours are bold in their contrast, the outlines are extremely simple and yet significant, and what in the first moment appears to be stiffness reveals itself on closer observation as the unavoidable round lines of Indian painting, which get full scope in the sitting figures, while the standing ladies have to match the elongated niches of the pavilion into which they are placed. The thinness of the pavilion moreover is due to its Islamic design. This work of popular art illustrates the tendency of the painter to tell in a clear and dignified way about the subject which he represents, and his simple language is satisfied with a pictorial world which is not more than surface deep, for all surroundings cease to exist in the presence of the chief actors. This way of surface decoration is Indian, but it is moreover popular Indian. The horizonless field of the picture, which is filled by the surface of one vision, we meet throughout the world in village art and children's designs. The early Rajput pictures thus represent people's art in India of the 16th century which gets its distinguishing mark by the curved outline of the figures, not to speak of course of costume, features, architecture and the like. A later Rajput painting—and the difference of schools is here, where the main features in common to all Rajput painting are concerned, out of consideration—though far more elaborate and complex in design relies in its essential effect on the same requisites as the earlier example. Again colour surfaces within minutely defined outlines embrace with delight the animated figures of the painting. But the plan of action has grown in width and the slanting surfaces of walls and floor surround the actors, while at the back on top of the gate a strap of landscape is inserted, where broad banana leaves and distant hills with shrubs are laid in one plan and form a pattern which repeats in its rounded outline the curves of all the pots which serve Radhika for cooking. Again as in the previous picture the architecture and the arch represented are Moghul, but the way of representation is Indian, that is to say Rajput.

The difference between Moghul and Rajput becomes apparent when similar compositions are compared. Again the story is told in an open courtyard with architecture on the sides. The slanting surfaces have become less slanting, and the surfaces less of surfaces, but looking more like illusions of real walls, which mark the front of the house, and you can go up the stairs, and enter the hall, and sit on one of the benches, or look out of the window, or you may go to the second story and join

the peacocks, or leave them and go further on through the long corridor which leads you right into the inner apartments. But it will be best if you imagine yourself sitting next to the two gentlemen, for there is room enough for you in the spacious hall, or else if you do not wish to disturb them, just take your seat on the broad brim of the wall or walk up and down the courtyard. This is what the picture wishes you to do or at least to imagine that you were doing, for otherwise for whom except the spectator would the whole illusion be got up? There was however no room for you in Radhika's little courtyard nor was there room for any house except for the one window from where Krishna's passionate glance was sent forth and cut off by its direction the outside world and kept Radhika enclosed within his longing and her garden, and you the spectator through the painter's vision could steal a glance of their feelings and doings. The space therefore in which, and the composition with the help of which, the Rajput scene takes place are concluded within themselves. They represent an objectified intuition. The Moghul space and composition on the contrary include you, the third person in their scheme and in order to make you feel at home with what they represent, they must give you as complete an illusion of the actuality of the scene as possible. The figures represented in either of these paintings are treated accordingly. Radha and her companion live one sort of life and the rhythm of their action and the beat of their heart is ruled by one fate. The two men of the Moghul picture however show their widely different characters by physiognomy and expression and their dress underlines and actually visualises their different personalities. The figures of Rajput art breathe in the thin and clear atmosphere of lines, and only the face has a conventional and faint modelling, while Moghul figures create the impression of living bodies dressed in the folds of costly materials.

This fundamental difference between the Moghul and Rajput way of painting is not due to Persian influence on the Moghul side. In fact history alone is not to be held responsible for the obvious difference between the two treatments, and it is wrong to conclude that because the Moghul rulers came to India from Persia and also brought Persian artists with them, the foreign element in Moghul art must be first of all Persian. The Persian influence was no doubt mighty at the beginning of Moghul art and paintings like that of the *Hamzahnameh* for instance are truly Indo-Persian art. Later however, the Persian element becomes less and less conspicuous in Indian art and it is the European treatment of landscape and architecture, of man and space which prevails. Whether this European style was fostered to a greater extent in India itself or whether it came to India under the cloak of Persian paintings it is difficult to decide. In any case the European element in Persia for

instance in the work of Riza Abbasi is not so widely used as it is in Moghul court art. We must therefore first extract that which is European in Moghul art in order to find the proportion of Indian and Persian conventions as contained in the rest. We have already seen that the illusion of spacious places, ample halls, massive walls and full round bodies is one distinct feature. Another is the treatment of landscape. If we recall the early Rajput representation, some plain dark blue colour meant landscape, night and vastness and timeless atmosphere of the picture. The latter showed more detailed features of nature as a banana garden and distant hills with shrubs and a pale sky on top. But trees, hills and sky were simply names and design within one surface as calm and broad as that of the blue of the earlier picture. No distance had removed man from nature and all of them shared one plan of existence and so it remained wherever Rajput art was untouched by foreign influences. But we must be aware that Rajput painting is not to be identified with Indian painting as a whole. It is nothing more, but also nothing less, than popular art, and uses the simplest means possible; The cubistic as well as the way of foreshortening achieved by Ajanta are completely forgotten. Rajput painting is just a vernacular expression, narrow in its expressions, but nevertheless deep. The landscape of a Moghul painting on the other hand is something quite new to India. There an attempt is made actually to surround the human figure so that it can move about and look around, and chains of hills, beset with trees, denote the distance from the main figure. The trees in fact are made into landmarks denoting distance. The smaller they are made, the greater a distance do they denote and their endeavour is just as absurd as that of their Dutch or Italian prototypes which had not yet solved the problem of perspective, and overshot their new awakened observation of nature, which taught them that the greater the distance the smaller the objects appear. They made therefore trees or building of minute size as if far away, while the hill which supported them appeared to be quite near. This incongruity of vision and knowledge peculiar to Dutch painting of the late 14th and early 15th century was taken up by Italian painting where it is still to be seen in Raphael's early work and the Indian artists, if their distance is considered, are not to be blamed for keeping up the same treatment for one or two more centuries. This failure in an attempted illusionism with regard to landscape was brought to India from Europe; in the field of architecture however western perspective and the Indian conception of space were fused on the spot. Thus the illusionism of Moghul painting whatever be its source, was inconsistent *a priori* and remained so to the end and the only escape from a complete artistic fiasco was either the personal genius of an artist or else utmost possible Indianisation.

The illusionism suggesting the material out of which our surroundings are built makes Moghul painting heavy and earthbound. It subdues the frail charm of the Persian form just as much as it hampers the melodious flow of the Indian tradition. The treatment of trees illustrates best the interference of Western with Eastern principles. The Ragini for instance stands on a Persian lawn surrounded by flowers Persian in arrangement and conception, under the shade of a tree of Indian art origin, facing a group of smaller trees of the same artistic family, while the top of the hills in further distance is crowned by small specimens of trees of European art extraction. The Persian way of treating plants is to show stems and branches, thin and frail, spread out in a motionless atmosphere and leaves and flowers appear as so many gems and precious stones, cut into minute shapes and stuck on to the branches where they fit in best. The trees of Indian painting simply grow. The sap which circulates through the tree and links its top with the earth is visualised by a solid round stem from which the top branches off in a few but vigorous twigs. They are bent with vigour and elasticity of growth and with the burden of large and abundant foliage. The European trees at least at a distance wear a top summarised in one outline, as one whole in light and shade. This Ragini picture is a museum of various specimens of art trees. All of them are acclimatised to the atmosphere of eclectic court art and have lost much of their original freshness yet retained enough to denote their origin. The varieties however gained by cross breed are large in number. Persian trees for instance either remain intact in their fragile aloofness or else and next to it they suddenly grow fat and round with European modelling or at last they incorporate the beauty of Persian leaves and flowers and the European substantiality of the wood in the Indian vigour of growing life which makes the branches turn and twist in elastic curves. A painting where all the three factors are assembled to equal parts, sets groups of men and the animals in a rocky landscape where tents and trees stand in the Indian convention of space, where rocks derived from Persia are invaded by European mass and Indian agitation and where the single group remind as much of Rogier van der Weiden's emotionalism as they stand near the scenes of village life familiar to Rajput painting. But apart from that quaint mixture not much is achieved in an artistic respect, for the decorative, that is to say Persian display of European trees obstructs the construction of the landscape and the agitated story could be told with less expense and in a simpler way.

The only rescue for Moghul painting therefore is the genius of an artist who as in the case of the "Dying Man" achieved a master-work international in its artistic language and universal in its expressiveness.

There all reminiscences are merged into one personal and subtle vision. The other way out of the whirl of imported conventions was Indianisation. A night scene for instance speaks of the intercourse Indian art had with Europe and yet no sound will be heard in the silence of worship and night. Though the form is mixed, the inner experience visualised is one and its nature is Indian. But Moghul painting was spoiled from the beginning. Its combination was artificial and therefore ephemeral. Unless a unique genius found a solution of his own quite personal mode of sentiment the Indian artist, even where his vision was Indian, could not but translate it into the international court language of Moghul art. It was only outside the circle of court art that Indian form was found for Indian contents, and there even where European allusions, and scarcely any of Persian origin, occur, they stand in the background and though they appear as additions they are neither offensive nor of much consequence. The episode of Moghul painting closes, and with it the import of Persian and European forms. After centuries, that is, at the present moment Indian art for the third time opens its gates wider than before, for East and West have come nearer, and it means much for modern Indian art to have realised the crisis, and knowing all forms by which it is surrounded to go on the eternal path of art in its own way.

STELLA KRAMRISCH.

REVIEWS.

Gautama Buddha, a biography, (The Heritage of India Series), pp. iii + 111. by K. J. Saunders, printed at the Wesleyan Mission Press, Mysore, and published by Association Press, 5, Russell Street, Calcutta, 1922.

No better subject could possibly have been selected by the Editors of this excellent series than Gautama Buddha, whose exemplary life conforming to the ethical principles he taught for half a century in the north of India revolutionised the life and culture of almost the whole of the Asiatic continent and left ineffaceable traces in the land of his birth. Varied as are the invaluable treasures of old inherited by India, the one that can be said to top the list is the ascetic life and ethical teaching of this Prince-Philosopher, whom even the authors of the Brahmnic Puranas prided themselves in classing among the ten Avatars or Saviours of India. It is the life and teaching of this ninth Avatar that forms the subject-matter of the excellent book under review. The book is divided into seven chapters together with an introduction of nine pages dealing with the sources from which the author has drawn and the critical principles he has employed in the selection of his materials. "The early life of Gautama; Quest and Conquest; Gautama at the height of his power; The daily life of Gautama and his disciples; The old age and death of Gautama; the Secret of Gautama; and Gautama as teacher," are the titles of the seven chapters which are too significant to need any detailed analysis. In a charming style and in as brief a compass as possible the author has admirably succeeded in presenting to the reader all that is worthy of knowing in the life of this wonderful prince and philosopher.

But critical as is the account of the Buddha's life and teaching presented in this book, there are yet certain unfounded statements of the author which cannot be left unchallenged. One of them is regarding the race from which Gautama is believed to have been descended. The author says that "it is possible that both Licchavis and Sakyas, like the modern inhabitants of the Tarai of Nepal, were Mongolians and that Gautama was not of Aryan stock." (p II). In a foot-note on the same page he adds that "Dr. D. B. Spooner maintains that Gautama was of Iranian descent. Perhaps both these views are right for there was much inter-marriage."

Anything may be possible in this world and any thing can possibly be mistaken for any other thing or maintained to have been any other. The question is not one of possibility or of sophistical reasoning, but of

facts. As a matter of fact it is well known both from the Puranas and writings of the Jains that the Sakyas were Kshatriyas. Accordingly as any other true-born Kshatriya, Gautama was at the age of ten or eleven initiated and invested with the "Bow-string, girdle, the *madder* undervest, and the deer skin, robe of the warrior, and instructed each year from July to October in Vedic lore. (p.16.)

If on the other hand Gautama Buddha were a Mongolian or an Iranian, he would not at all have been treated as a Kshatriya and taught the Vedas. There is reliable evidence to believe that no Brahman during the Buddhist period would even at the cost of his life teach or officiate in the service of a person not born of the three higher castes. According to the Arthashastra of Kautilya one of the qualifications for appointment to high offices in Government service was strict adherence to one's own religion and religious customs at all costs.

In order to test this virtue Chanakya suggests the plot (Arthashastra, I. 10) that a would-be priest should be asked by the king himself to teach and officiate in the sacrifice of a person not belonging to the three higher castes, and that spies should be sent to tempt the priest thus provoked to join in a conspiracy to dethrone the king. If he refuses, he is said to be regarded as a loyal and at the same time a true religious person.

From this it follows that the Brahmins of those times were very conservative and that if the Sakyas had been other than the true Aryans, they would not have initiated Gautama Buddha, as they are stated in the writings of the Buddhists to have done. The Lichchavis, Vrijikas, and other clans of the times seem to have been split up into a number of rigid caste-like groups with barriers against inter-marriage, and inter-dining (Arthashastra, Book XI). This explains the caste pride of the Saka clan and its refusal at all costs to give a Saka maiden in marriage to the king of Kosala. This insult led the Kosala king to massacre the Sakyas at the end of Gautama's life. Can it be said then that the Sakyas were Mongolians and used to inter-marry with the imaginary Iranians of Dr. Spooner?

Another unfounded statement made by the author in this book is regarding the cause of Gautama's death. He says (p. 76) "At Pava he took meal at the house of Chunda, the smith. Some *very tough pork* was set before him, and Gautama, anxious not to hurt the poor man's feelings, ate it. Then with a whimsical smile, he asked Chunda to bury what was left, for no one in the world except a Buddha could digest it. He was seized with an attack of dysentery"*

* Compare Monier Williams' *Buddhism*, p. 49; Bigandet's *Legend of Gautama*, Vol 2, p. 41; Anandakumaraswamy's *Buddha and the Gospel of Buddhism*, p. 79, Rockhill's *Life of Buddha*, p. 133; and Rhys David's *Buddhist Suktas*, p. 71.

The writer of the work from which the above passages are copied here by Prof. Saunders is one of those, who have expounded a peculiar moral theory to justify the immoral and irreligious acts of eminent men and women and even of gods. They say that gods and persons of extraordinary merit are so altruistic and selfless that their seemingly immoral or irreligious deeds are done mainly for the good of such as are affected by those deeds. Thus Krishna's intercourse with sixteen thousand Gopis, Parasurama's murder of his own mother under the command of his father, and many other deeds of gods and heroes narrated in the Puranas are described as having resulted in bringing emancipation to the Gopis and Parasurama's mother. With a view to magnify the powers of men and gods extraordinary acts are sometimes attributed to them. A story is told that Sankaracharya went for alms to a liquor shop and drank a cup of liquor, when his disciples accompanying him followed his example. Sankara went on another occasion to an iron furnace and swallowed a molten mass of iron put into his hands as alms by the ironsmith. His disciples could not do this. Then Sankara is said to have warned his disciples of the immense risk involved in following the examples of eminent men, when not possessed of their extraordinary power.

There are however strong reasons to believe that the story of Gautama's death in consequence of the eating of pork had quite a different origin at all events. There is no doubt it has its origin in the wrong interpretation made by Prof. Rhys Davids of the Sanskrit or Pali word 'Sukaramaddava' used in the Parinivvana Sutta in connection with the food which the Buddha, the strictest and the most exemplary vegetarian and the most enthusiastic expounder of the sanctity of animal life, ate in the house of Chunda, an ironsmith. It means both a boar and a sort of moss (*Lycopodium imbricatum*) just as 'saindhava' means both a horse and sea-salt. As a rule commentators are told to take into consideration the context, propriety and other factors enumerated in works on rhetoric as determinants of the particular sense in which words of more than one meaning are used. Thus for example, when a person serving a dish is asked to bring *saindhava*, the servant is presumed to take into consideration the context of eating and bring sea-salt, but not a horse which has nothing to do with the context. Propriety and context compel us to take *Sukaramaddava* to mean a kind of soft mass or truffles.

In the present case it is surprising to see that such an eminent scholar and authority on Buddhism as Prof. Rhys Davids should entirely fail to take into consideration the determining factors of word-meaning consistent with the creed of the Buddha, who not merely preached sanctity of animal life, but also observed it to the very letter.

as proved by his strict observance of the *vassa*. It is solely for the purpose of avoiding the killing of animals and worms crawling on the roads during the four rainy months that Hindu Sannayasins, whether Buddhists, Jains, or Brahmans, take a vow to shut themselves in a *math* or monastery. During the Buddhistic period the vow of *vassa* was strictly observed by Mahavira and his host of followers. If Gautama had been in the habit of eating flesh, there is no doubt his claim to respect as a religious teacher would have been ridiculed and derided. It was a period in the history of India when the Jainas and the Buddhists were united together in condemning the Brahmans for their animal sacrifices and flesh-eating. It was a period when it was taught both by the Jainas and Buddhists that flesh-eating was a serious religious sin. It was also a period when malicious persons seem to have been ready to employ any means, fair or foul to bring discredit to men held in high esteem by the world. This is corroborated by Devadatta's plot not only to bring the infamy of adultery to Gautama, but also to murder him.

Under such circumstances there is no reason to believe that the Buddha's practice was quite opposed to his teaching. What is however contended here is not whether flesh-eating is religiously good or bad. The question at issue is whether the Buddha ate pork contrary to the principle of sanctity of animal life he preached. From the above it is clearly seen that except the slender basis of ambiguous sense of the word *sukara* there is no other reliable evidence to say such a thing of the Buddha.

As to other controversial questions, such as "ignoring the rights of wife or child" (p. 20) and permanence and impermanence, self and selflessness, bliss of *Nirvana*, and annihilation of *Nirvana*, there can be no universally acceptable decision and it seems better to leave such knotty questions for the reader himself to decide.

On the whole the book is an excellent treatise on the subject and deserves a place in the library of every Indian student.

R. S. S.

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The Coins of India. (Heritage of India Series.), pp. ii+120, by C. J. Brown, printed at the Wesleyan Mission Press, Mysore, and published by Associated Press, 5, Russell Street, Calcutta.

No nation reputed for its ancient civilization has been more tenaciously clinging to the customs and glories of its buried past and yet more woefully neglecting its past history in the real sense of the word than India. Nor is there any nation which is more indebted to the

indefatigable researches of western scholars for the formation of its past history than India. A number of English scholars had patience enough to carry out their researches into the antiquities of India, archaeological remains, epigraphical records and numismatic horde. Small as are the results thus arrived at so far as the true early history of India is concerned, they form in themselves bulky volumes for the student of Indian history. As an excellent and brief summary of the results based upon the study of the coins of India towards the formation of its early history, the book under review may be said to be unrivalled. As usual, no book on coins of any nation can afford a pleasant and profitable reading without some knowledge of epigraphy and palaeography of the nation on the part of the student. Much more so in the case of India, the early history of which is still in dispute. But Professor Brown has admirably succeeded in making the book a continued pleasant historical narrative passing from period to period with necessary links skilfully supplied and interpreting the legends and inscriptions on the coins with no interruption to the flow of the narrative. The book is divided into ten chapters arranged in chronological order and enriched with twelve plates illustrative of the coins on which the historical information is based, each plate, besides being furnished with a page, supplying a key to decipher the legends and inscriptions.

Keeping aside punch-marked coins which are not yet studied, the author proceeds to give in the first chapter a summary of the information so far gathered from the study of indigenous coins with inscriptions in *Brahmi* or *Kharoshthi* characters. Nothing however is known of Phagunimitra or Naigama, appearing on some coins ascertained to be earlier than Indu-Bactrian types. Confining his attention not merely to such historical information as is confirmed by the study of numismatics, the author supplies also the additional information on the various types of coins that were current at the beginning of the Christian Era in India. Thus treating of the numismatic sources of the history of India relating to the Greeks, the Bactrians, the Guptas, the mediæval dynasties, and the Mohammedans, together with kings of southern India, the book is really a valuable contribution both to the study of one of the sources of Indian history and to the evolution of Indian coinage.

R. S. S.

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A History of Great Britain from the Roman Conquest to the Outbreak of the Great War. By R. B. Mowat, M.A.

THIS is an admirable book which contains many useful illustrations and a few maps that are essential to make the facts more impressive.

The get-up of the book is neat, the size not so bulky as to frighten a student of average abilities of the Intermediate standard, and the language easy, "the ordinary literary English which every careful teacher uses and which boys and undergraduates understand," as noted in the preface by the author. It gives a continuous account of the life of the English nation in all its aspects, political, literary, economic and social, with perhaps a slight emphasis on the last two phases of it. The subject, vast as it is, is well compressed into a single volume of a little over one thousand pages divided into three parts. Part I extends down to the end of the Tudor period, Part II, from 1603—1815, and Part III comprises the 19th century history. Each of these three long periods is surveyed under broad general headings. The interest is rightly made to centre round great events and towering personalities. The author traverses rapidly over the early portions down to the close of the reign of King John. The history of the next three centuries is reviewed in three or four select themes, such as, the beginning of Parliament, the Hundred Years' War and the Wars of the Roses which finally swept off the relics of the Middle Ages from England. The Tudor period is treated under the three main headings of 'the Renaissance and the Reformation,' 'the Completion of the Reformation' and 'the Expansion of England.' In this manner the author passes on from one leading topic on to the next in the making of the history of the nation, avoiding tiresome details and yet giving extracts from original sources when necessary to make 'the past speak for itself.' In every period the striking features are summarised, the significance of every great struggle or movement is set forth, and the lines of general progress from age to age are clearly indicated. The domestic reforms of the 19th century, the imperial development, the foreign affairs in general and the Eastern question in particular are all treated in detail more or less like essay subjects. The great statesmen of the period as well as the men of letters have received full and individual attention. And lastly the cartoons and caricatures from *Punch* and other papers, that embellish the pages of Part III, heighten the delight of the reader.

The plea of the author in bringing out this publication is to supply an up to date text-book giving the current views on the facts of the past based upon fresh knowledge derived from research and indicating new lines of teaching and study lest both become stereotyped. The book is everything that the author has intended it to be.

K. D. R.

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Introduction to Engineering Drawing. By J. Duncan, M.I.M.E. Messrs. Macmillan & Co., Ltd., London.

I went through the book minutely and am glad to say that the author

has taken a lot of pains in explaining some of the difficult problems of the Engineering drawings, in a very clear and lucid manner, so that the beginners might understand them by themselves. Though the book may not be so very useful for advanced students in Engineering (as it is chiefly meant for beginners) yet I am confident that they will also find the instruction given in the book somewhat useful to them. Of course, there may be several books dealing with the same subject and explained in a different manner, but I think, in my opinion, this book will be found popular especially among the young students in Engineering, both Civil and Mechanical, as a supplementary guide.

C. M. P.

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Problems in Modern Science. Edited by Prof. Arthur Dendy, F.R.S.
Harrap. 10/6 net. P.T.I. Book Depot, Bangalore.

THIS book contains a series of public lectures delivered in 1921 at King's College, London, by members of the College staff, with the object of placing before the public a statement of the present position of some of the main branches of science, and of indicating the directions in which progress is being made or may be hoped for in the near feature. The branches of science which formed the subjects of the lectures are Mathematics, Astronomy, Physics, Organic Chemistry, Physiology, Biology, Botany, and Anatomy. One of the heaviest penalties which scientific men of this generation must pay for progress in their respective fields of learning is an ever-growing estrangement from branches of science other than their own, with several of which, perhaps, they were slightly acquainted for a short period during their early training. Hitherto little has been done to mitigate this evil. Books have been written in popular, and in semi-popular style, dealing with the various branches of scientific enquiry, but for the most part they have been the work of a single author who, if he were an expert in his own subject, must necessarily have written on others with but reflected authority. In the volume before us we have the first-hand opinions of experts in each subject expressed in language as free from technicalities as is consistent with accuracy and lucidity. The style of the lectures ranges from the popular (e.g., in that on Physiology) to one which makes a considerable demand on the reader's power of concentration (e.g., in those on Mathematics and Astronomy), and it may fairly be questioned whether the average intelligent reader without any scientific training would glean much precise information from a perusal of the lectures belonging to the latter class.

It is not possible within the scope of a brief review to give any

adequate idea of the subject-matter of these addresses. Each lecturer has dealt with his subject in his own way, in some cases giving a broad survey of the field allotted to him, in others adopting a more specialised treatment. The selection of subjects is arbitrary, being determined by factors over which naturally the editor had no control, and it is to be regretted that it is so far incomplete as to exclude, for example, Geology, General Chemistry, and various branches of applied science such as Medicine and Engineering. These omissions, however, do not affect the value of the actual contents of the book, which goes far towards satisfying a want which has long been felt, and which the continuous advance of science only serves to aggravate. It is unfortunate that the somewhat high price of the volume will place it beyond the reach of the majority of students undergoing University courses, for it ought certainly to be read by all who are engaged in the study or the teaching of science, being admirably adapted to give the worker in one branch of science a clear conception of what other branches of science are about and of the directions in which modern research is tending. Some of the lectures—as those on Physiology, Anatomy, and Organic Chemistry—might be read with profit and pleasure by persons who have received no scientific training. In conclusion, attention may be directed to one feature of this collection which is peculiarly refreshing in these days of hustle and so-called “efficiency”: no disproportionate emphasis is laid on the utilitarian aspect of scientific work. It is shown clearly how pure and applied science are in a constant state of mutual indebtedness, and how results of the most far-reaching practical importance have often been the outcome of work pursued for purely cultural ends, and in the entire absence of any striving after material advantage.

F. L. U.

COLLEGE NOTES.

Maharaja's College

THE MAHARAJA'S COLLEGE PHILOSOPHICAL SOCIETY.—ONLY four meetings were held this year. At the first meeting, Mr. Venkata Rao was re-elected Honorary Secretary, and Mr. Yamunachar read a paper on the Relation between Instinct and Reason. Prof. Wadia, the President of the Society, was in the chair. Mr. Yamunachar followed very closely the line of psychological thought represented by writers like McDougall, Trotter, and Tansley. The paper laid great emphasis on the instinctive make-up of the human mind as the real source of all driving power in human behaviour, and pointed out the abstract and intellectualist character of the old rational psychology. There was not much discussion. It was mainly confined to the single point how the instinctive forces could lend themselves to be modified by reason, if reason had absolutely no motive power. This was the point raised by Mr. Venkata Rao. The chairman pointed out the implicit dualism of such an attitude, and emphasised the unity of mind as an ultimate fact, at least in psychology, and as such could not be further explained.

At the second meeting Mr. N. S. Hiranayya of the first year class read a paper on "Animal Instinct." The first part of the paper described and defined many typical forms of animal instinct, and attempted to show that intelligence was not absolutely absent even in the most rudimentary of them. The second part sketched the chief theories of the nature of instinct without developing any one attitude. Mr. Govindarajalu, Assistant Professor of Philosophy, was in the chair. The discussion centred round the relation between instinct and intelligence: whether the two could be regarded as essentially akin. The chairman sketched the Bergsonian view of the problem with great lucidity. This is the first time in the history of the society that a first year student came forward with a paper and even produced such a remarkable paper.

At the third meeting Mr. H. N. Raghavendrachar of the third year Arts class read a paper on the *Pramanas* in Indian Philosophy. Prof. Hiriyanna was in the chair. The paper advisedly gave an exposition of the chief *pramanas* with the minimum of comment and interpretation. Mr. Venkata Rao raised some familiar questions usually raised in Western

philosophy regarding the problem of perception. He asked for the criterion which shall decide the truth value of appearances in thinghood. Mr. Hanumantha Rao made a striking suggestion regarding the interpretation of verbal testimony. He thought that the revelatory character of this *pramana* was nothing crude, but rather points to the self-revelation of reality in the intimacy of human experience as a felt and lived thing. He suggested that the Crocean doctrine of the identity of history and philosophy points to the same idea. Prof. Hiriyanna seemed inclined to accept such an interpretation. In his closing speech, he developed the place and value of the *pramanas* in the history of Indian thought, and hinted at the parallel position of critical philosophies after Kant in Europe.

At the fourth meeting, Mr. Venkata Rao lectured on Descartes. He traced all the crudeness of language of Descartes to his unconscious acceptance of certain scholastic doctrines, and pointed out by a consideration of his method and of the proofs of the existence of God, that Descartes' misleading terminology really contained the germs of the later idealism of Kant and Hegel. The chairman, Mr. G. Hanumantha Rao of the M.A. class, brought out vividly the significance of the subjectivistic turn that Descartes gave to modern philosophy.

As he looks back on the work of the year, the Secretary is poignantly aware of the discrepancy between his original programme and the actual work turned out. He takes this opportunity to express his best thanks to all who assisted him in carrying on the work of the society.

M. A. VENKATA RAO,
Hon. Secretary

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Central College

THE CENTRAL COLLEGE DRAMATIC SOCIETY, 1922-23.—THE Central College Dramatic Society was started early in the session at a meeting on 28th July 1922, convened by Mr. Sell at the instance of several enthusiasts.

Mr. F. R. Sell, M.A., was elected the *President*.

The following members were nominated as committee members:—

Mr. M. L. Srinivasa Sastry, II B.A., *Secretary*.

„ D. V. Rama Rao, III B.A., *Treasurer*.

„ K. Krishna Murti, I B.A.

Each year class was represented on this committee. The fee for membership was put at one rupee per session.

It was proposed to organise lectures as well as to stage dramas. Consequently the following lectures were arranged for and delivered during the session:—

- (1) *Shelley and Hindu Thought*.—By Mr. K. Sampathgiri Rao, B.A. (Hon.), Wednesday, 13th September 1922.
- (2) *Sir Galahad and the Holy Grail*.—By Mr. F. R. Sell, M.A., Thursday, 26th October 1922.
- (3) *The Attic Theatre*—(Illustrated by slides).—By Mr. E. G. McAlpine, M.A., Wednesday, 15th November 1922.
- (4) *Shakespearian Comedy*.—By Mr. F. R. Sell, M.A., 31st January 1922.

Cast of Characters in Romeo and Juliet.

<i>Prince</i>	..	..	Mr. V. T. Srinivasan, B.A.
<i>Montague</i>	..	..	E. S. Srikanthan
<i>Capulet</i>	..	..	L. S. Doraswami
<i>Paris</i>	..	..	R. S. Chandrasekharan
<i>Romeo</i>	..	..	M. L. Sreenivasa Sastry
<i>Mercutio</i>	..	..	K. Krishna Moorty
<i>Friar Lawrence</i>	..	..	B. S. Rama Rao
<i>Friar John</i>	..	..	B. Raja Rao
<i>Benvolio</i>	..	..	M. V. Govindaswami
<i>Juliet</i>	..	..	B. N. Sriharshan
<i>Nurse</i>	..	..	K. Anantachar
<i>Lady Capulet</i>	..	..	D. Shamanna
<i>Balchazar</i>	..	..	A. Narayan Rao
<i>Abraham</i>	..	..	R. S. Madhu Rao
<i>Gregory</i>	..	..	B. S. Rama Rao
<i>Sampson</i>	..	..	N. S. Raghavan
<i>Apothecary</i>	..	..	C. K. Balakrishnan
<i>Page to Paris</i>	..	..	B. J. Gopal Rao

Dramas.

After strenuous rehearsals Shakespeare's *Romeo and Juliet* was successfully presented before the public in the Ratnavali Theatre, Bangalore City on Monday, 6th November 1922.

On 17th December 1922, the Society repeated their performance of *Romeo and Juliet* in the Town Hall of Mysore under the patronage of Dr. Seal, the Vice-Chancellor of the University.

For the night of College Day, February 3rd, the Society put on some scenes from Sheridan's *Rivals* and *Prahla* (in Telugu). The Society's efforts were much appreciated.

On January 13, 1922, a histrionic contest was held in which the prizes were won by Mr. V. Krishnamurti and Mr. K. Krishna Murti, respectively.

The Society is self-supporting and its numbers on the rolls are 75.

The Society may look back with complaisance upon its record for the session.

F. R. S.

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THE MYSORE UNIVERSITY MAGAZINE

JULY 1923

EDITORIAL.

THE MYSORE UNIVERSITY: A RETROSPFCT.—This month the Mysore University begins the eighth year of its existence. Seven years constitute but a drop in the ocean in the history of an intellectual movement, yet the period is long enough to justify a retrospective view, seeking to study the causes that led to the foundation of the University, and to see how far it has succeeded in realising the aspirations of its infancy, and what it promises to achieve in the future. Seven years ago the very idea of a university in Mysore was bold and venturesome. To-day the statesmanship that ushered it in can contemplate with genuine satisfaction the establishment of small universities in more than half a dozen different centres in India, and the great changes now inaugurated in the Madras University are bound to accentuate the movement for different universities in the different parts of South India. Travancore is already busy evolving a scheme for a university, and if Mysore had not already anticipated the movement, she would have had to think of a university at least at this juncture.

In the pre-university days the Mysore colleges were affiliated to the Madras University, and suffered from those very defects, from which the Hon'ble Mr. Patro's bill sought to rescue the University of Madras. As a merely examining body, the Madras University, like all the older universities in India, failed to realise the true functions of a University: a definite contribution to the advancement of knowledge, and stimulating the intellect of young men so as to make them hungry votaries at the shrine of knowledge. Indian Universities used to be mere names to the thousands that came to receive their degrees within their portals. They held forth no ideals, they evoked no enthusiasm and they furnished no basis for memories such as an Oxonian or a Cantabrian rarely fails to cherish. All these results were, if at all, but faintly achieved by the various colleges affiliated to this or that university. But colleges in India have suffered from some very palpable defects.

On their teaching side, the professors had no voice in controlling the courses of studies, except a happy few who taught in the metropolitan colleges. The professors in the mufussil colleges,—our colleges in the Mysore State inevitably came under this category—served but as hewers of wood and drawers of water. Under such circumstances the teachers had often a remote interest in the subjects they handled; and the best of them felt a sort of helplessness, which paralysed both their desire and their efforts to do better. This evil, bad in itself, was aggravated by overwork, lecturing to the extent of eighteen hours and more a week, generally in varied subjects far removed from each other. A deep study of any subject was more an obstruction than a passport of success to a young professor, and the tradition grew up—we are not sure it is by any means dead in many colleges in India even to-day—that a Professor of History can at any moment be called upon to teach English and Logic, and a Professor of English should be qualified to teach Economics, History and even perhaps Sanskrit. Any specialisation was impossible, any intensive study was impossible. No wonder if professors took the line of least resistance and thought their work done when they read one text-book, summarised it, and dictated this summary in class as a good means of killing time. Compared to the great universities of the West, no wonder if our colleges had no great intellectual life, had no zest to form any academic tradition. No wonder if our colleges in the eyes of the West were but glorified schools. The conditions of recruitment to the I.E.S. appointments in Government colleges constituted till lately an amusing commentary on the state of education in India. Rigidly excluding Indians of the very highest capacities, the recruitment was as rigidly confined to young Englishmen under the age of 30. A professor of Sir J. J. Thomson's calibre at the age of 40 would have been summarily rejected, and at the age of 60 in spite of his world-fame might have been rejected in favour of the rawest graduate he had himself trained and examined. Under the cramping conditions of college life in India really able men hardly ever cared to come out to India, and that a Fellow of All Souls' at Oxford like Mr. F. W. Bain should have come out as an I.E.S. was certainly an honour to the service as it was a piece of refreshing good luck for India. Missionaries have been greater educationists in India than I.E.S.'s for their fixity of tenure—as contrasted with the most unseasonable transfers so common in Government colleges—and a doggedness of purpose gave them a status, based on experience, and an influence, which they richly deserved.

The only tie that bound the colleges to their particular university was the annual examinations. They had to conform to the requirements

of the university examinations. Their prestige depended upon the percentage of success in these examinations. The only point of competition among the colleges was this very percentage. The result was inevitable. The colleges had to sink to the level of coaching institutions, factories for manufacturing graduates. An average graduate was a machine, and not necessarily even an intellectual machine. These evils did not come to the surface in the early years of our Indian Universities, for the numbers were small; students had at least some opportunities of mixing with their teachers; they often constituted the very elite of Indian intellect. A Ranade, a Pherozeshaw Mehta, a Tilak, a Gokhale, an Ashutosh Mukerji or a Ghose arose as the very flower of Indian intellect, not so much because of the impetus of their humdrum intellectual environment, but rather in spite of it, for a great man can rise above his environment and can create a career in the midst of hindrances, which only stifle an average intellect. But the success of a university cannot be gauged by a few towering names, and the evils inherent in the very ideal of university education in India blazed forth only towards the closing years of the last century, when numbers told upon the economic possibilities of a degree, and large classes made any healthy intercourse between the teachers and the taught a practical impossibility. Young men often left their college without having personally known the principal or the staff of their college, and a kind of intellectual anaemia, a growing sense of disappointment, even disillusionment, a horrible consciousness of the gulf that separated the actual from the ideal, were bound to result, and it became an open question whether the universities in India had achieved the mission of a university: advancement of knowledge and development of character.

These evils were not peculiar to any one university, but were common to all Indian Universities. Calcutta was the first to be conscious of the limitations of its past activity, and thanks to the genius of Sir Ashutosh Mukerji, the post-graduate side of the Calcutta University came to be developed. Far be it from us to say that this has been developed absolutely on the right lines. The Sadler Commission had to recognise the fact that the post-graduate work in the Calcutta University was not of the sort which goes under that name in the Western Universities. The number of students is abnormally large so that the standard cannot be the highest possible; nor has Calcutta divested itself of the general Indian mania for lectures. The number of lectures a post-graduate student has to attend is four to five a day. There is an amount of spoon-feeding which no university in the West will countenance. The craze for notes finds a fertile field in such an environment. But when all this is said and done, India yet owes an unbounded debt of gratitude

to Calcutta and Sir Ashutosh for unfurling the banner of research and holding up to teachers a higher ideal of scholarship than could be found in publishing cram-books for examinations. A Professor of History cannot be content now to produce "Questions and Answers in English History, etc." Nor is a Professor of Philosophy content to write a thousand and first text-book on "Deductive Logic with exercises for Intermediate students." Professors have been made to feel that something more is expected of them than such compilations as were so fashionable in the last century. Splendid opportunities have been given to professors and readers to specialise in certain subjects; they have been given just a few hours of work a week so as to leave them ample time to carry on their researches. This experiment, if such a term can be adequately applied at all, has been more than justified, and Calcutta must for long remain an inviting ideal in this direction. The example of Calcutta was falteringly followed by other universities, including those of Bombay and Madras, but none has yet come up even to the fringe of the vast range of intellectual activities in Calcutta.

Such was the state of university education in India, when Mysore began to think of a university for herself. So long as her colleges were affiliated to the University of Madras, they suffered under all the disadvantages of mofussil colleges. Without any voice in the shaping of courses and yet obliged to spend fairly heavily to meet the wishes of the university authorities in Madras, it was a question whether an independent university would not be more advantageous to the future of the State. There was a good deal of opposition to the idea both from without and from within the State, and yet it was a glorious opportunity to chalk out a new path for university education. A small compact university located in two places exquisitely healthy and beautiful; freedom to develop her own courses of study, independent of external pressure; an opportunity to revise and remodel the school education from its earliest stages; development of a closer tie between the teachers and the taught; lessening the importance of mere examinations and emphasising the quality of work done during the terms; developing a sense of corporate existence; merging the idea of a college into that of a university; developing tutorial work and fostering the idea of research; carrying high knowledge to the very doors of those who had been strangers to university education through the medium of Extension Lectures—these ideas and several more floated in the air and facilitated the birth of Mysore University. Few who have been conversant with university education or have studied its complex problems will venture to deny the worth of these ideas. But fate has conspired to thwart their full realisation. The demon of finance has had much to do with this,

but with the return of prosperous times such an enlightened government as that of Mysore may well be trusted to put the university on a sound financial basis. But the University has had to face a much more insidious foe in the shape of those, who nurtured in the old defunct ideals of the older universities, have not the requisite experience or the vision to appreciate the problems of a genuine university education, and it is to clear this mental fog that we are penning these few lines.

The Mysore University may well be credited with one great achievement, *viz.*, allowing the teachers to specialise in their own subjects without imposing on them the burden of lecturing on subjects they have really no pretensions to teach. Further, it has got the mastery of directing its own destinies. It can change its own courses, introduce new subjects, minimise palpable defects, when they cannot be absolutely overcome, it can even modify the soulless rigour of examinations, wherever necessary. Serious attempts have been made to introduce the tutorial system, but hardly with any great success, for the conditions which have conduced to the greatness of the tutorial system of Oxford and Cambridge do not exist in Mysore. For the first time in the history of the universities in India, Mysore provided for a full-time Vice-Chancellor, and has succeeded in securing an academic Vice-Chancellor. This in itself is no mean change, though the lay public has hardly yet appreciated its import, so long was it accustomed to regarding Vice-Chancellorship as a floral appendage to a high court judgeship. This has of course raised new questions relating to university organisation. The right movement would be to recognise the University itself as a unit formed as a republic of letters, where it would be anomalous to let a Professor of Pathology settle what particular assistant the Professor of Assyriology should have. Under new conditions departmental responsibility deserves to be put on a firmer foundation than was possible in the old Madras days. Further an infant university like that of Mysore has yet to build up a strong tradition whereby the Senate and the Faculties can gain the confidence of the public. Owing to the peculiar conditions under which the Indian Universities have been working, its membership has not fallen to the lot of the educationists quite adequately, and has often served as mere honour to those, whose title to a seat in the Senate on academic grounds would be considered exceedingly thin. The Senate of the Mysore University, true to its ideal of a teaching University, has provided for a full representation of the teaching members, an example which the older universities in India may well emulate. But it is to be earnestly desired that non-educationist members of the Senate should also be such as have kept themselves in living touch with education, read about it and thought about it.

This end can only be achieved, if all—including the registered graduates—who have a right to elect fellows will have a high sense of duty, and place the interests of the university above those of personal friendship or personal ambition to be known as Fellows of the Senate, and it is perhaps equally desirable that due weight be given to the opinions of expert educationists even by those, who think that they are competent to speak on any and every question that crops up before the Senate. The work of the Senate will certainly be lightened, if the Faculties are permitted to pronounce their verdict on all questions of technical detail. To perform this task the Faculties, even more than the Senate, must consist of only educationists and genuine experts. It would be a sore weakness in any university organisation, if a person who knows nothing of science is nominated for a membership of the Faculty of Science, and *vice versa* a person who has long bidden adieu to arts is put forth as a member of the Faculty of Arts. These are defects incidental to immaturity, but in fulness of time it is to be earnestly hoped that the membership of university bodies will be taken always seriously. It is then that the Senate and the Faculties will be looked up to with reverence, and their pronouncements will carry a weight, to which in strict theory they are fully entitled.

The weakest link in the chain of Indian education has been the school education. The examination-passing ideal of education held up by our older universities has reacted most disastrously on our schools, and a more tragic scheme of school-education was never devised than when the S. S. L. C. curriculum was established in Madras. Mysore as an affiliated child of Madras had to accept the scheme in a loyal spirit. If for no other reason than to escape the tyranny of this immature specialisation, leading to the formation of "educated" men without a cultural basis and with but a skin-deep specialisation, Mysore should have been abundantly justified in establishing a university of her own, and organising her school-education on a sound academic basis. Unfortunately colleges enjoy a glamour in India far beyond their merit, and schools fail to receive due attention. It is a symptom of this unhappy state of affairs that head-masters, especially of Indian schools, are not considered worthy of being appointed or elected to the Senate. The reform of schools in Mysore is unduly delayed, and yet it is a simple proposition worthy of being accepted without any hesitation that all talk of university reform is so much breath wasted, until we can make sure of an efficient supply of undergraduates from our schools. Considering the inefficiency of school education in India, it would be no exaggeration to say that the university here would not produce any better results than now, even if the whole staff of the Oxford University were to be bodily transferred to

it. This question of secondary education has been before a select committee of the Senate for over two years now, but their proceedings or their conclusions have not yet seen the light of day. Considering the general importance of the subject, all who are interested in education in Mysore anxiously await their report.

The main direction in which our secondary education should advance lies in a root-and-branch omission of specialisation in schools. It is a most unhealthy thing in itself and most unfair to students to declare for science or for arts at an age when they have not any idea of either. It gives a twisted turn to their whole future, cuts away the science students from a knowledge of their country and its past and its living problems, while it deprives the so-called arts students of even a modicum of knowledge of science. The European Universities allow specialisation only after a thorough all-round training in a school, and this ensures a certain amount of culture in every graduate in the West, whatever be the degree of his specialisation during his university career. It is only after a student has undergone the compulsory discipline of arts, science and mathematics, that he can get to know what his capacities and predilections are, and it is only then that he is intellectually fit to select this or that subject as his optional, and it is only then that he can efficiently react to the endeavours of his teachers and repay to some extent the cost that the State incurs on his behalf.

As things now are in Mysore, a student is called upon to make his choice of an optional after he has passed the Lower Secondary Examination. How is a young boy who is ignorant of the very rudiments of science to say whether he is fit for science or not? It is inevitable that he must be guided by his father or guardian, and naturally the latter will be guided by the idea as to which course will be paying in terms of coin. Now there is unfortunately a deep-rooted idea that there is so much literary education already that there are prospects only for science people. This idea is further supported by the pseudo-patriotic cry that India's future is bound up only with the development of science. The result has been that there is a plethora of science students, as we noted in our last issue. The heavy slaughter of Entrance candidates in science is enough to show that these were not justified in taking up science at all. Of those that pass,—some of whom may be indebted to the generosity of the Board of Moderators,—several have to be refused admission to the science colleges for want of accommodation. So some drop off and some drift to arts without having had a previous satisfactory training in arts. Such raw education is bad for them, bad for the teachers, bad for the University and bad for the country at large. This heritage from the old Madras connection is perhaps the greatest hindrance in the path of education in Mysore to-day.

Let us guard ourselves against one misapprehension. Far be it from us to deny that India's progress to a great extent depends upon the advancement of scientific education. But a country like India, which has not a bent towards science, is apt to suffer from the effects of an ignorant exaggeration. It is thought—at least by many that never worked in a laboratory, but want to lead public opinion as champions of science—that science will advance when many and perhaps the majority go in for it. A more ridiculous idea could hardly be imagined. Even in the very home of science: Europe and America, the science students are not in a majority. Science cannot advance, if every Tom, Dick, and Harry is made to take science. This is a sure mode of retarding its progress. Science flourishes only when its aristocratic nature is recognised, *viz.*, only those few who have a real zest for science are given full facilities to prosecute scientific studies. No Government can spend too much on science, provided they spend it well and only on the fit. But to spend money in providing laboratory accommodation for those who barely scrape through the examination is a sheer waste of money, unjustifiable economically and unjustifiable scientifically. Let the same amount be spent on providing the professors of science and a chosen few of their pupils with the full equipment required, and Mysore may hope to get a return for the money spent. In this connection we would rather be guided by the pronouncements of scientists themselves than by those who have had no first-hand knowledge of the working of a laboratory. Prof. Venkatanaranappa spoke words of wisdom, when at a public meeting in Bangalore held on 17th May last he said: "It was certainly not worth spending so much money on a subject for which such a large number of students had no aptitude, and the superficial training in science that such students received was absolutely of no benefit to the country." A training in arts, which certainly does not create millions, is at least calculated to give culture and broaden the intellect in a way which mere science can never hope to do. If Mysore can rise above the existing conditions, and can face educational problems as educational problems, our university may look to a great feature before it.

The universities in India are passing through a transition stage. There is a definite awakening from the old examination ideals, which needs careful fostering, in spite of the opposition of those, who brought up under the old ideals are not competent to appreciate the worth of new ideals. The financial needs of universities have become a great perturbing factor even in the oldest universities like Oxford and Cambridge. No wonder if the same difficulties confront Indian Universities. Calcutta University has managed to make peace with the Government of Bengal, and we rejoice in an arrangement which has been creditable to

both parties. We feel sure that once the people realise the importance of universities in national life, neither they nor their representative ministers will grudge to invest money in a cause, which perhaps brings no money in direct return, but which undoubtedly enriches the soul of the people. Lord Haldane struck the right note when he said: "The development of the true spirit of the university among a people is a good measure of the development of its soul and consequently of its civilisation." The future of India will be judged by the character of men her universities produce. In this great work the Mysore University is bound to play its part. It was the first to rebel against the old ideal of a vast affiliating university, and its example has been followed by all the universities established in India during the last seven years. This and the high encomium passed on it by the Sadler Commission are a tribute to the new movement for small universities in India. If only in the near future the financial resources of the State and the generosity of the people come to the help of our University, it will go a great way to justify its claim as a nursery for soul-culture. Many to-day in the State are indifferent to it. They cannot yet get rid of a mania for lectures, making them value the efficiency of an educational system in terms of quantity of lectures. Nor have they yet appreciated the importance of a wide general reading and intensive study, which require leisure from the grinding mill of set lectures. In the older universities, the burden of class-work both for the teachers and the taught yet continues to be very heavy. Mysore has made this burden lighter than it used to be, yet there is room for improvement. We have come across teachers who have had to "gas," repeat things and somehow kill time, because they were given far more hours than were really needed. The result is a tedium in professors and the students are needlessly fagged, they have no time and no energy left for independent reading or thinking. And yet the real test of university education is not the amount of matter stuffed into students in class-rooms, but the intellectual zest created in them good work outside the class. To attain this end many of the hours for devoted to set lectures need to be changed to tutorial or discussion classes. This will make the teachers and the taught better known to one another and create an intellectual sympathy worth tons and tons of soulless notes. Mysore must take up a stand against spoon feeding and insist on the claims of intellectual vigour and freshness. This too let us hope, will come in course of time despite reactionaries. No movement succeeds permanently which succeeds with ease. Conflict and opposition are the salt of life. Our University is ultimately bound to justify itself, if only the alumni that have already passed through its portals will carry the message of university aspirations to their families and the people at large.

THIS ISSUE.—In the history of education in Mysore during the last half a century no name stands out more prominent than that of Munir-ul-Talim Mr. H. J. Bhabha. We consider it a privilege that this magazine should be honoured by an article from his able and experienced pen. We particularly draw the attention of our readers to it, as it deals with universities, of which practically nothing is known in India, and the experience of young universities in Australia would be helpful to us in this country. We envy the magnificent endowments with which private generosity has enriched those universities. It may prove an incentive to the millionaires in our midst. In several other directions the article throws out most interesting suggestions. We thank Mr. Bhabha most sincerely for his valuable contribution, which, we expect, will continue for one or two issues more.

We are grateful that our appeal for co-operation did not fall on deaf ears, and we have been able to redeem our promise about the punctual appearance of this issue.

A VISIT TO AUSTRALIAN UNIVERSITIES.

TOWARDS the end of 1922, I paid a short visit to Australia with Sir Dorab Tata, who went on a long sea voyage for the improvement of his health, and I took the occasion to see something of the work of the Universities of Perth, Adelaide, Melbourne and Sidney. At the same time I also studied the systems of technical education prevailing side by side with the Universities. An eminent Australian doctor in Bombay was kind enough to inform the Universities of Perth, Adelaide and Melbourne beforehand of our intended visit and, a friend in Sidney introduced us to the Registrar of the Sidney University. We were received everywhere with the utmost cordiality and hospitality, and were given an opportunity to collect first-hand information.

UNIVERSITY OF PERTH.

Soon after the P. and O. S. S. *Naldera* was berthed in the harbour of Freemantle, Professor E. Shann, Professor of History and Economics, who is Vice-Chancellor, and Dr. Batty, Warden or Chairman of the Senate of Perth University, called on board to take our party consisting of Sir Dorab Tata, Dr. Wadia and myself to the University. Sir James Mitchell, Governor of West Australia, placed two motor-cars at our disposal. Perth is about eight miles from Freemantle and is connected with it by an electric railway. On our way we called on the Honourable Dr. Saw, Chancellor. The University which is the smallest of the four universities commenced its work ten years ago in 1913. It is a Unitary Teaching University accommodated in temporary buildings; constructed of timber on a small site of a few acres in the heart of the town. On our way to Perth we were shown the permanent site on the River Swan which is intended for the University. It is two and a half miles from Perth and has an area of 120 acres amidst beautiful surroundings. Opinions are still divided whether the University should leave its present site in the heart of the town for a permanent home away from the town. This difference of opinion and the difficulties of finding money for suitable permanent buildings worthy of the University have been the chief reasons for the delay in removing the University from its present site.

Professor Shann and Dr. Batty showed us over the lecture rooms and laboratories of the University. There are three Faculties: Arts, Science including Agricultural Science and Engineering. The lecture rooms and laboratories are well equipped, and the Professors are distin-

guished men brought out from Great Britain. The subjects taught are Modern Languages, Literature and History, Mathematics, Physics, Chemistry, Engineering and Mining. The post of Vice-Chancellor is honorary, and the Professors by turns perform the duties of Registrar without remuneration, which speaks a great deal of their earnestness and zeal. From the second week in December to the middle of February is the long vacation, the rest of the year being divided into three terms with occasional holidays. The University charges no fees for tuition except a small laboratory fee. The lectures are open to the public in addition to the regular matriculated students. The number of regular students which was 180 in 1914 is still small, compared to the large numbers attending the Technical School.

A striking and most important feature of education in Australia everywhere is the great encouragement given to Technical Education by the side of University Education. Very large sums of money are spent on Technical Education for which numerous and extensive classrooms, laboratories and workshops are required. The Universities and the Technical Schools work side by side, the latter being affiliated to the Universities in certain courses, and the Universities co-operating with the Technical Schools in instruction. As the subject of Technical Education is most important, it will be treated separately after the work of the Universities has been described.

ADELAIDE UNIVERSITY.

As soon as our ship anchored at the outer harbour of Adelaide, Dr. J. B. Cleland, Professor of Pathology in the University of Adelaide, very kindly came on board to take our party to the University. Sir Dorab Tata was unfortunately too ill to leave the ship and Dr. Wadia kept company with him on board. After breakfast Dr. Cleland and I went by the electric railway to Adelaide. A very short walk from the station brought us to the University, where I was very kindly received by the Honourable Sir George Murray, K.C.M.G., Lieutenant-Governor and Chief Justice of South Australia, who is Chancellor of the University, and by Professor William Mitchell, M.A., D.Sc., Vice-Chancellor.

Adelaide is a beautifully laid out town. It is called the Athens of Australia, and has an air of refinement and beauty difficult to surpass anywhere. The University buildings are situated in North Terrace, the principal street of Adelaide, which is beautified with noble buildings and boulevards. They are in the vicinity of Parliament House, Government House, the Public Library and Reading Room, the Museum, the Art Gallery, the Conservatorium of Music, and the School of Mines and Industries, which last is the principal Technical School of the State.

The beautiful Botanical and Zoological Gardens are at one end of the North Terrace at a short distance from the University. There are no residential colleges or halls for students, the University buildings themselves being constructed on a small plot of five to six acres. But the neighbourhood of so many educational and other public buildings and the beautiful surroundings produce the charm of a University town. At a short distance from the town is Mount Lofty with its parks, recreation grounds and playfields for students.

The Chancellor and Vice-Chancellor very kindly showed me over the commodious lecture-rooms and beautifully equipped laboratories and the Library. I was greatly impressed with the laboratories of Physiology and Bio-Chemistry, and their elaborate equipment of which every detail had been carefully studied, though all other laboratories were also admirably equipped. The extensive library is accommodated in a large Gothic Hall with seating accommodation for a great number of students.

The University of Adelaide was established by Act of Parliament in 1874, and in 1881 Royal Letters Patent were issued declaring that the degrees granted by it should be entitled to rank, precedence and consideration throughout the British Empire, as if granted by any University in the United Kingdom.

The University owes its origin to the munificence of Sir Walter Hughes, who made money from copper mines, and Sir Thomas Elder, each of whom gave a gift of £20,000 in 1874. Sir Thomas Elder subsequently gave £30,000 for a Medical School, £20,000 for a School of Music, and £25,000 for general purposes besides other minor gifts. Parliament gave in 1874 an annual grant not exceeding £10,000 and 50,000 acres of land worth £40,000. Parliament made an additional grant of £4,000 in 1911, and provided a further grant of £20,000 in 1920. The total grant from Government in 1921 amounted to £34,860. Mr. John Darling gave in 1919 a sum of £15,000 for a new medical building, and in 1921 the Honourable Sir Langdon Bonython, K.C.M.G., provided £40,000 to be paid to the University in 1930 for a great Hall. The total of all endowments of the University amounted in 1921 to £243,414, exclusive of three valuable estates and 5,880 shares in Elder Smith & Co., Ltd., given by Peter Waite, Esq., to advance the cause of education and especially to promote the teaching and study of Agriculture and Forestry.

The University grants degrees in Arts, Science, Law, Medicine, Dentistry, Engineering and Music, and diplomas in Commerce, Music, Education and various branches of Applied Science. It was the first University in the Empire to grant degrees to women or degrees in Science.

At first there were only four Professorships, the subjects being (1) Classics and Comparative Philology, (2) English Language and Literature, and Mental and Moral Philosophy, (3) Mathematics, and (4) Natural Science.

There are at present 16 chairs in (1) Classics and Comparative Philology and Literature, (2) Philosophy and Economics, (3) Modern History, (4) Engineering, (5) Physics, (6) Anatomy, (7) Physiology, (8) Chemistry, (9) Botany, (10) Law, (11) Music, (12) Pathology, (13) Mathematics, (14) Geology and Mineralogy, (15) Zoology, (16) English Language and Literature.

There are besides 50 Lecturers and 19 Teachers of the Elder Conservatorium.

The Professors and Lecturers conduct the examinations and take into account the written work and laboratory work of the candidates. For the Medical Examinations external examiners are often appointed.

In 1876 the first year in which the University commenced its work there were only 8 matriculated students and 52 non-graduating or unmatriculated students. In 1921 there were 768 undergraduates, 18 graduates reading for the M.A. Degree, and 552 non-graduating students. There were in addition 583 students in the Elder Conservatorium. The number of undergraduates studying for the B.A. Degree was 327, for the B.Sc. Degree 99, for the B.E. Degree 96, for the LL.B. Degree 84, for the M.B. Degree 134, for the B.D.S. Degree 23, for the Mus. Bac. Degree 5, for the Diploma in Commerce 175.

The University and the School of Mines combine by mutual agreement their teaching powers and their laboratories for instruction in Mining, Engineering, Metallurgy, Mechanical, Electrical and Civil Engineering, and Architectural Engineering. The University and the School of Mines acting in concert hold examinations and grant diplomas in various branches of Applied Science.

Besides the examinations for degrees and diplomas the University conducts all other Public Examinations in school subjects which are graded as Primary, Junior, Senior and Higher. It also conducts Junior and Senior Examinations in Commerce, and several examinations in the Theory and Practice of Music.

The University is governed by a Council consisting of 20 members elected by the Senate, one-fourth retiring every year, and of five additional members, appointed by the State Parliament from its own members, who hold office during the life-time of the Parliament.

The Senate consists of all graduates of the degrees of Master or Doctor, and all other graduates of three years' standing. It meets three times a year in March, July and November. There are six Faculties:

Arts, Science, Law, Medicine, Music and Dentistry. Engineering is included in Science.

All Statutes and Regulations must be passed by both the Council and the Senate, and approved by the Governor of South Australia, who is ex-officio Visitor of the University.

The Council has the entire management of the University. The Chancellor and Vice-Chancellor are elected by the Council. The Chancellor, Vice-Chancellor and Members of Council appointed by the Senate hold office for five years. The Council meets at least once a month. It appoints two committees from its members, the Committee of Finance and the Committee of Education. These committees also meet once a month to deal with questions of Finance and Education respectively and report their findings to the Council. The Council has the right to appoint, dismiss or suspend a Professor. The dismissal of a Professor cannot take effect, unless it is confirmed by the Visitor. The Council has full power to make and alter any statutes and regulations subject to the approval of the Senate.

There is a Board of Discipline consisting of the Chancellor, the Vice-Chancellor, the Deans of the various Faculties, the Chairman of the Board of Musical Studies, and such Professors and Lecturers as may be appointed by the Council. Subject to the approval of the Council the Board makes rules for the conduct of students on the premises of the University. The Board may admonish a student, inflict a fine not exceeding 40 shillings, administer a reprimand either in private or in the presence of any class, suspend him temporarily from attendance at any course of instruction, exclude him from any place of recreation or study, or expel him from the University. Every decision of the Board is reported to the Council who may reverse, vary or confirm it. Any Professor or Lecturer may dismiss any student from his class whom he considers guilty of impropriety, but shall on the same day report his action and the ground of his complaint to the Chairman of the Board of Discipline.

There is an ordinary and an Honours Degree of Arts and of Science. Candidates may obtain either or both degrees. The University grants a diploma in Primary Education to those who have passed the examinations for the Degree of Bachelor of Arts or Science, and taken English Language and Literature, Psychology and Education as prescribed for the ordinary Degree of Bachelor of Arts, and also taken a course of professional study in the principles and practice of Primary Education and obtained adequate experience in teaching and school management. Similarly the diploma in Secondary Education is granted to Graduates in Arts or Science if they have passed the B.A. Degree

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Examination in Psychology or Education, taken a course of professional study in the principles and practice of Secondary Education and obtained adequate experience in teaching and school management. The fees for written and practical examinations amount to £10-10s. for each diploma. The University also grants a diploma in Commerce and a diploma in Economics and Political Science.

The University Tutorial Classes were first established in 1918 to provide facilities in University Education for those who are unable to attend the ordinary University courses. A tutorial class covers a three years' period of study with 24 meetings in each year, each meeting consisting of an hour's lecture followed by questions and discussion. The students have to write fortnightly essays on prescribed subjects. Each tutorial class is preceded by a preparatory course of 12 lectures, and if at the end of this preparatory course 24 students are willing to undertake the full tutorial course of three years, the Committee sanctions the conversion of the preparatory into a tutorial class. The students pay a fee of £5 per class per annum. In 1922 tutorial classes were held in Economics, English Literature, Political Philosophy, Modern History and Music. In 1921 there were 338 students enrolled in 8 tutorial classes, six of which were held in Adelaide and two in the country.

The University provides Evening Classes in Arts and Science for those, who are unable to attend lectures during the day, when a sufficient number of applicants come forward.

The Council institutes short courses of Extension Lectures in Arts and Science at a nominal fee. Extension Lectures on the following subjects were delivered in 1921:

"Disease, its meaning, community spread, and various Australian settings," by Professor J. B. Cleland.

"The League of Nations—its principles and aims," by Professor Coleman Phillipson.

"Physiology of Every-day Life," by Professor Brailsford Robertson.

The subjects for the Extension Lectures in 1922 were the following:

"Relativity and the Modern Theory of Gravitation," by Professor Wilton.

"The Interpretation of Life, Mechanism, Vitalism and Animism," by Professor Brailsford Robertson.

There are numerous societies associated with the University, such as the Graduates' Association, the University Union, the Science Association, the Medical Students' Society, the Medical Sciences Club, the Christian Union, the Sports' Association, the Shakespeare Society, the Law Students' Society, the University Society of Commerce, the Classi-

cal Association, the Mathematical Teachers' Association, and the Dental Students' Society. These societies greatly add to the social life of the students and make up to a large extent for the want of residential colleges.

It is worth noting that in 1921 of the total income of the University of £63,567, more than half or £34,860 was received from the State, nearly one-third or £20,171 was received from fees, and £7,950 was received from interest of endowments. The various schools of the University cost £39,663 inclusive of fees for Examiners and cost of conducting examinations; the Registrar's Department cost £4,115, Prizes and Scholarships cost £884. After defraying these and other expenses, a balance was left of £13,731 at the end of the year.

The tutorial classes cost £1,456 towards which amount a grant of £1,300 was received from the State. The Extension Lectures cost only £76, and £74 was received as fees.

I give the above details culled from the Calendar of 1922 as they may be of interest to a young University like that of Mysore.

I cannot forget the great kindness and hospitality of Professor Mitchell the Vice-Chancellor. After visiting the University he very kindly took me and Professor Rennie in his own motor-car for a long drive through the town to Mount Lofty and the Public Park and back through the Botanical Gardens to lunch, where I met again Professors Chapman, Robertson and Cleland and the Director of Education. After lunch I was taken for a visit to the School of Mines and Industries. I shall refer to the visit in my account of Technical Education. Professor William Mitchell was good enough to see me off at the Railway Station in the afternoon after a very pleasant morning profitably spent with him.

H. J. BHABHA.

(To be continued.)

DOMESTIC RITES OF THE JAINAS.

It is generally known that so far back as the sixth century B. C. a considerable band of Vedic Aryans, probably under the lead of Kshatriya kings, seceded from the hierarchy of the Brahmins, renouncing the Vedas and the Vedic sacrificial religion. The seceders called themselves Jainas or followers of Jina, the first of their twenty-four Tirthankaras. Nothing worth mentioning is known of the first twenty-three Tirthankaras or teachers. The twenty-fourth teacher is a well known historical personage who under the name of Vardhamana Mahavira was a religious teacher at the time of Srenika or Bimbisara of the Sisunaga dynasty in Magadha about 550 years before the beginning of the Christian era. Though Vardhamana seems to have organised the movement and placed it on a social and religious basis, it cannot be denied that the origin of the movement lay some centuries earlier. If the stories narrated in the Jaina literature of Krishna, Baladeva, and Nemi can be relied upon, the Jaina movement may be traced back to the period of the Mahabharata war when taking advantage of the retirement of Nemi from the kingdom of Madhura (Muttra) Krishna is said to have succeeded to the throne. That Nemi was strongly inclined towards Jainism is proved by the statement made in the Uttaradhyayana *sutra* (Chap 22, P. 666, Calcutta Edition, 1872) that seeing the proposed slaughter of animals for the feast of his marriage and coronation, Arishtanemi preferred asceticism to marriage and kingdom and retired into the forest.

While the Jaina literary works so far published throw a flood of light on the new code of ethics and religious practices taught by the earlier teachers and established by Vardhamana, the domestic rites of the Jainas enable us to understand what old customs they retained and what changes they introduced in the social customs inherited by them. In common with the Brahmins, they appear to have had the sixteen social customs and purged them of all animal slaughter connected with them. By the time the secession took place the division of the Aryans into seven or ten principal *gotras* or families seems to have been an established fact, and Gautama and Bodhayana, as *sutra* writers, seem to have established their respective schools. The Vedic *mantras* were replaced by Sanskrit or Prakritic sentences teaching in clear terms the moral precepts taught to the performers of the rites. This is especially the case with the rites connected with the Initiation of students, and Marriage. The teaching of moral principles to the initiated Jaina

student is quite similar to the daily prayer of the Brahmans. It cannot be decided whether the daily prayer of the Brahmans inculcating atonement for sins committed consciously or unconsciously in walking, eating, sexual enjoyment, and in thought, words and deeds is posterior in composition to the start of the Jaina movement or subsequent to it. That Naga worship existed even so far back as the Vedic period is clearly seen from references made to it in the Vedas. Whether the worship of the planets is a later introduction is a question not yet decided. It is likely that Jainism may have owed some customs to later Brahmanism. The amplification of the Jaina *gotras*, and the introduction of the *Gayatri* in the rite of initiation are likely to have been later adoptions. So far as marriage was concerned, caste distinctions were upheld. There seems to have been no restriction to inter-dining with people of other castes. Strict rules were observed in diet and forbidden articles enumerated. In connection with marriage it is interesting to note that daughters of maternal uncle and paternal aunt are married and that those who are addressed with such appellations as mother, sister, daughter, mother-in-law, daughter's mother-in-law, and daughter-in-law come under the list of prohibition. From this it appears that the appellations are meant to indicate the prohibition of marriage with them. It follows therefore that the avoidance of girls for marriage within seven generations from the father and five generations from the mother is a later rule based upon prohibitory appellations. What distinguishes the domestic rites of the Jainas from those of the Brahmins is that while the *Mantras* used in the Brahmanic rites have no close bearing on the rites, those of the Jainas are so composed in the Pali or Sanskrit language that they clearly convey the meaning that is intended to be signified by the rites. The chief interest of the rites lies in the moral training, which its performance is expected to bring home to the mind of the performer. It is a training in the final spiritual life which the performer is expected to follow later on.

With this introduction I now proceed to give a brief description of the rites as given by Brahma Suri in his *Acharasangraha* which is said to form part of his *Jainasamhitasara*.

The sixteen domestic rites observed by the Jainas are:—

- (1) the rite to be performed at the conception of a child,
- (2) the rite to please the pregnant wife at the 3rd month,
- (3) the ceremony to secure the birth of a male child,
- (4) parting of the pregnant wife's hair,
- (5) ceremony for the new-born child,
- (6) name-giving to the child,
- (7) taking the child out of the house,

- (8) seating the child,
- (9) feeding the child,
- (10) causing the child to walk,
- (11) tonsure of the child's head,
- (12) teaching the alphabet,
- (13) holding the book,
- (14) initiation of the student,
- (15) the bath taken at the end of studentship, and
- (16) marriage.

There are two important rites performed in connection with each of the above sixteen rites. They are (1) the *Nandi-Homa* and (2) *Grahayajna*. Nandi is an auspicious ceremony and may be performed in three ways. Some Brahmans may be asked to confer blessings upon the person performing the Nandi and rewarded with rice and other things necessary for a day's meal. Or Brahmans may be asked to perform oblations into the fire kindled for the purpose and may be sumptuously fed, or the family priest or any other well-known priest may offer oblations into fire and bless the person, who is going to perform any of the sixteen rites. The *homa* rite is usually performed thus :—

In the centre of the hall of the house of the person in question a priest draws a square the side of which measures about a yard and paints it with red colour. He spreads over the square surface coloured rice and draws four straight lines East to West and also North to South. At each of the eight quarters, N.E., E., S.E., S., S.W., W., N.W., and N. he draws a lotus flower touching three lines, and then spreads over the surface of the square flour or rice in the form of a thin layer. Then sprinkling water over it, he divides the rice into two parts by drawing a line and writes a Svastika in each half with the letters Srim and Hrim respectively. There he places over each Svastika a vessel filled with water adorned with *darbha* grass, mango-leaves and flower garland. At a little distance from the marks of the lotus flowers he writes the symbols of the eight devas, (1) Arhat, (2) Siddah, (3) Acharya, (4) Upadhyaya, (5) Sadhu, (6) Jinadharma, (7) Jina Sruta and (8) Jaina Chaitya. Away from this square he writes another square with four doors and covers it with coloured rice, flower and sandal. To the West of the western lotus, he puts a plank for sitting; to the North of the northern lotus, he places *darbha* grass and vessels; to the South of the southern lotus he keeps vessels to receive cooked rice, fried grain fire-kindling sticks, clarified butter; and to the East of the eastern lotus flower he keeps a spoon and a ladle. He gathers 108, 27 or 9 fire-sticks of *palasa* or *udumbara* as thick as the

little finger and as long as nine *angulas*. The fire sticks are to be bound together with a rope made of twelve *darbha* grass and twisted threefold. The spoon is said to be of three *angulas* in its circumference with an edge half an *angula* deep and with a round handle. The ladle has a handle twenty *angulas* long with its face three *angulas* deep. They are made of the Indian fig tree and in its absence, its leaves are made use of. To supervise the performance of the rite, the priest is accompanied by another priest called Brahman. In the circle made for the purpose, fire called *Garhapatya* is kindled and is said to be looked upon as the Arhat. In some rites *Ahavaniya* and *Dakshinagni* are also kindled and worshipped. On all the four sides of the fire three blades of *darbha* grass with a fire-stick are placed. Then the vessels are touched to the flame and dried. Either over this fire or over a separate fire kindled elsewhere a little quantity of rice is cooked for offering.

Immediately after this an even number of Brahmans take with their hand flowers with coloured rice and say 'let everything prove auspicious to the house-holder or person in question,' while the priest is seated touching the two water-vessels with his hands. When the Brahmans throw over the water-vessels the flowers and coloured rice held in their hand, the priest takes up the water with seven *darbha* grasses from the vessels and sprinkles a few drops on all sides, saying that the day has become auspicious. Taking seven *darbha* grasses again and dipping their edge in clarified butter, and drawing the edge thrice in it from West to East, he throws the grasses into the fire. Then taking clarified butter with the ladle, he pours it into the fire, once moving the ladle from South-West to North-East and once from the North-West to South-East. Then he worships the five Gurus, and teachers with flowers and coloured rice, whereupon he puts fire-sticks one after another into the fire. He also puts into the fire cloves, fried grains, wheat, sesamum seeds, each six times. He also puts a handful of cooked rice in each of the four quarters round the fire. After doing this he mixes cooked rice with clarified butter and fried grains and taking each time four handfuls of the above mixture, he puts into the fire as many times as the number of fire-sticks which he puts into the fire. Finally he makes the swishtakrit offering and also an expiatory offering. After this he makes the final offering by pouring clarified butter into the fire, whereupon the priest with the Brahmans sprinkles the water contained in the two vessels over the person for whose benefit the above oblations were made. This is the procedure of what is called *Nandi-Homa*.

THE WORSHIP OF THE PLANETS.

On a surface formed into a square the priest puts into eight quarters eight small heaps of rice representing eight planets. The heap represent-

ing the Sun is coloured red, the Moon white, Mars pale red, Mercury yellow, Jupiter white, Saturn and Rahu and Ketu black. Sometimes vessels or kindling fuels such as *Arka*, *Palasa*, *Khadira*, *Apamarga*, *Pippala*, *Udumbara*, *Sami*, *Darbha* and *Durva*, are placed to represent the planets. Then the eight Devas named before are worshipped. Then follows the worship of the planets and the offering of oblations by eight Brahmins. The worship of the planets is also enjoined on full moon and new moon days, on the days of eclipses and solstitial days.

1. THE RITE FOR THE CONCEPTION OF A CHILD.

On the fourth day after menses, the maid is caused to bathe first in water mixed with cow-dung, cow's urine, milk, curd, and clarified butter, then in pure cold water and then in tepid water. After she has dressed herself and put on ornaments, she is taken to the hall of the house where a curtain is hung with a layer of rice grains spread on the floor on both of its sides. The husband of the maiden is made to sit on the rice facing East and the maiden facing West on the other side of the curtain. The priest with a few Brahmins recites benedictory verses and throws coloured rice and flowers on the couple. The curtain is removed and the couple are made to see each other. Then, as described in the beginning of this paper, worship of the fire and the planets is gone through and Brahmins are presented with money, cocoanut fruits together with *pan supari*. Then the couple drink a dose of the mixture of the powder of *Aegle Marmelos* (bilva) and lotus-root with milk and sugar. The couple eat from the same plate that day and take their bed together at night.

2. THE RITE PERFORMED TO PLEASE THE PREGNANT WIFE.

In the third month of her pregnancy, the couple bathe and put on their dress and ornaments. They sit on a seat, the wife being seated to the right of the husband. After the priest has gone through the *homa* rite and uttered the benedictory verses and before the final oblation is made, the husband sprinkles the sacramental water on the belly of the wife. Then the final oblation is made and the priest and a few Brahmins assembled are presented with money and cocoanut fruits together with *pan supari*.

3. THE RITE TO CAUSE THE BIRTH OF A MALE CHILD.

This is performed in the fifth month. In this rite it is the husband that has to perform the oblations into the fire and the worship of the planets. After this is done, the husband puts a long garland of barley or wheat grains round the neck of the wife. Then the final oblation into the fire and presentation to Brahmins are made.

4. THE CEREMONY OF PARTING THE HAIR OF THE WIFE.

In the seventh month of her pregnancy, after bathing, and putting on their dress, the couple sit on a seat facing the East. An old lady, having her husband and children, parts the hair of the pregnant woman with the stick of the *Khadira* tree wound round with three blades of *darbha* grass and two fruits and flowers, or with the stick of any other sacrificial tree, or with the quill of a porcupine, and puts red-lead powder on her head. Then the husband puts the powder of the glamourous fig tree both on the head and belly of the pregnant woman. Then the priest puts a garland made of the raw fruits of the glamourous fig tree round the neck of the woman. After this is over the final oblation and presentation to Brahmins are made as usual.

5. THE RITE AT THE BIRTH OF A CHILD.

On the birth of a child, male or female, the father of the child sips water and performs a *pranayama*. Then deputing some Brahmins to perform the worship of Jina together with oblations into the fire, he sprinkles water with three *darbha* grasses over the child and its mother. This he does without uttering any *mantra* in the case of a female child. Then mixing milk with clarified butter and sugar and putting into the mixture a small golden coin, he causes the child to sip a little of the mixture and cuts off the navel-cord. The bit cut off is preserved. Then the room of confinement is cleansed, old mud being replaced by new. Such cleansing is to be performed once in three days till the pollution is got rid of on the tenth, twelfth or the fourteenth day according to caste rules. On the last day the rites of *homa* and *punyaha* are performed.

6. THE CEREMONY OF GIVING A NAME TO THE CHILD.

After the pollution is got rid of, the father, after bathing and putting on pure dress, spreads rice and grains in a plate and writes there along with his own name the name he likes to give to his child. In another vessel filled with milk and clarified butter he keeps the several pieces of jewels intended for the child. Then sprinkling water over the plate and the vessel with *darbha* grass, he adorns the ears, head, arms, and the neck of the child with the ornaments. After uttering the one-hundred and eight names of the Arhat, he calls upon him to give the child a good name.

Then the final oblation into the fire and presentations to Brahmins are made as usual. In the night of the same day two small holes are made in the child's ears and the child is also put into cradle and swung.

7. THE CEREMONY OF TAKING THE CHILD OUT OF THE HOUSE.

When the child grows three months old, the father or the mother has

to take the child out to the temple of Jina and show it the idol of Jina and the sun's disc, when Brahmans are also invited to bless the child.

8. THE CEREMONY OF SEATING THE CHILD.

When the child grows five months old, it is bathed and dressed well. In the centre of the hall a beautiful carpet is spread and the child is made to sit on it putting the legs crosswise on its thighs. Brahmans, who are invited to bless the child, are fed and given presents when red coloured water with rice grains in a plate is taken and circled by ladies before the child.

9. THE CEREMONY OF FEEDING THE CHILD.

When the child passes seven months, an entertainment is given to Brahmans and the child is fed with cooked rice mixed with milk, sugar and clarified butter, or it is given a drink of milk or curds.

10. THE CEREMONY OF MAKING THE CHILD WALK.

When the child grows nine months old, oblations into the fire and worship of the planets are made. In the front of the Brahmans assembled in the hall a piece of white cloth is spread and the child is made to walk on it and then round the Brahmans.

11. TONSURE OF THE CHILD'S HEAD.

After performing the usual oblations into the fire and worship of the planets on an auspicious day fixed for the purpose, the child, three years old, is bathed, dressed and made to sit on a plank facing the East. Six plates filled with sesamum seeds, beans, barley, corn, wheat, rice, tender leaves of *Sami* (*Mimosa Suma*) and cow-dung are kept somewhere to the North of the seat of the child. By the side of these plates a razor, a stone on which the razor is rubbed to sharpen it, a pair of scissors, and seven *Darbha* pieces with knots are also placed and flowers and coloured rice grains are thrown over them. Having thrown sesamum seeds round the boy seated on the lap of his mother, the boy's father takes a little warm water in hand and sprinkles it on the floor in front. Taking a little butter mixed with curd, he besmears the hair on the boy's head. Then taking the razor with a piece of *Darbha*, he cuts off some bits of hair near the right ear of the boy and placing the bits with the tender leaves of *Sami* (*Mimosa Suma*) on a plate, he hands it over to the boy's mother. She puts the bits of hair over cow-dung. Thus he cuts off bits of hair on the right side of the head four times and on left side thrice, handing the cuttings to the boy's mother who throws them over cow-dung. After this a barber shaves the head of the child, receiving some reward for

shaving. Then the boy takes a bath and the cuttings of hair are buried in a heap of cow-dung. At last the final oblations into the fire and presentations to Brahmans are made.

12. TEACHING THE ALPHABET.

On an auspicious day in the fifth year of the boy, after the usual *homa* rites and the worship of the planets are performed, a priest or teacher spreads rice grains on a broad board placed on the floor, and after the boy has made salutations to the Arhats, Brahmans, and the teacher, he holds the boy's first finger and writes the alphabetical letters on the rice grains on the board. From the day onwards, the boy is made to learn writing.

13. HOLDING THE BOOK.

When the boy has learnt how to write, he is caused to worship books on an auspicious day after the usual *homa* rites are made, and is taught by his teacher how to read. He is also taught arithmetic, table of monies, dictionary, prosody, and rhetoric.

14. THE CEREMONY OF INITIATION.

At seven and other odd years of age, the boys of Brahmins and other good or pure castes are invested with their sacred string. On an auspicious day after the *homa* rite and the worship of the planets are performed, the boy, well-dressed, seats himself on a plank facing the East, when his father makes a vertical line with sandal powder on his face. After the ceremony of investiture of the girdle of *Munja* grass twisted three-fold and a loin-cloth, the boy is invested with sacred string, consisting of three threads symbolising the three gems: good learning, good knowledge, and good conduct. After this ceremony, the boy is made to wear two garments, the upper and the under garment and is taught to offer water to the Arhats and Siddhas. Then his teacher gives him a cocoanut with flowers and coloured rice and teaches him the ethical commandments as follows:—

“Destroy no animals; utter no falsehood; do not steal; commit no adultery; have no ambitious scheme of possessing fields, houses and wealth; give up liquor, flesh, honey, gambling, and eating at night; do not eat the fruits of milky trees which are always full of worms; give up eating cucumber, the fruit of the jujube tree, gourd, kalanja flowers, plantain flower, garlic, asafoetida, sprouts, creepers, and cold and stale food; give up also drinking the milk of a cow that has not passed 15 days after delivering a calf; abstain from drinking the milk and curds of a buffalo; do not chew betel leaves, do not decorate your body with colours and washes; shave only your head, but no other parts; do not

get up the top of a wall, a fort, a tree growing on the bank of a river or lake, or a turret; and do not swim in a tank or a deep lake."

Having commanded him thus, the teacher teaches him the *mantras* used in performing *homa* rites and the *sutras* treating of the moral conduct and manners of the three *varnas*, and gives him an umbrella and a stick made of *palasa*, *khadira* or *udumbara* as long as he is high and having a piece of yellow cloth at the top. Then the boy offers three handfuls of water to the Arhats with flowers and coloured rice. Then the teacher teaches him the method of worshipping the fire. The boy thus goes out of the house and having offered a handful of water looking at the sun returns and worships the fire after kindling it. He makes offering of coloured rice, fried grains, and cooked rice into the fire. Having bowed down before the fire, he takes up a vessel and goes to the houses of Brahmans to beg alms. In each house, he cries '*Bhagavati bhiksham dehi*', 'O lady, give me alms'; If the lady addressed happens to be a Kshatriya or a Vaisya woman, he has to put the word 'Bhagavati' before 'dehi' and after 'dehi' respectively. While giving alms, the lady has to say 'Learn the first Anuyoga Sutra' and give four handfuls of rice. The relatives who happen to see him begging have to entreat him not to quit his own country for the sake of knowledge. After returning with his alms, he has to worship the fire, if he has not done it before he went out. After this is over, the Brahmans invited are all fed and presented with money and flowers.

On the fourth day after the ceremony of Initiation, the boy performs his *homa* rite and goes with his relatives and Brahmans to a well-grown fig tree. Having made a pit round the tree, he waters it and worships it. To the east of the tree he kindles a fire and performs the *homa* rite, and says addressing the tree as follows:—

"As thou art a Bodhi tree (wisdom-tree) pure and worthy for sacrifice, so make me also wise, pure and worthy."

Having prayed thus, he binds a girdle of *Munja* grass to it and having perambulated it and the fire thrice he returns home to feed the Brahmans as on the first day.

The Initiation ceremony is usually performed before a boy attains the age of sixteen years. In the same year of his initiation, he performs the rite of *Sravani* in the month of Sravana (August) and begins the study of *Tatvartha Sutra*, a treatise on the philosophy of the Jinas.

15. THE BATH TAKEN AT THE END OF STUDENTSHIP.

After finishing his study and fifteen days before his marriage, the student takes leave of his teacher to go home and marry. Having performed the *homa* rite, he presents to his teacher in addition to a cow

with its calf, a sum of money. Having put on the dress of a household-er and worn head-dress and sandals, he goes to a well-grown fig tree and having watered it, he removes his girdle of *Munja* grass and puts it on a branch of the fig tree pointing to the North-East. Then taking a fuel of twenty-four *angulas* in length from the fig tree he returns home and puts it into the fire.

R. SHAMA SASTRY.

(*To be continued.*)

ON THE PAIN OF THE PUNJAB.

Mother, teach me with thee to agonize,
My heart is bursting with its unshed tears,
A numbness as of death upon it lies,
The death that cannot know of hopes or fears.
The foam is on your mouth, and in your eyes,
Or blood or tears I cannot see for pain.
O Mother mine, teach me with thee to agonize:
With thee who weep'st the slayer and the slain !
I cannot weep like thee, I cannot love,
And thou forbiddest, and I am sick of hate,
"Hatred is Death"—I hear thy voice above
The deafening strife—"They live who live with fate."
Then since from work no comfort I may reap,
I come, a little child, with thee to weep;
O teach my chastened tears to flow, and meet,
In the deep silence of thy age-long woe,
The blood upon thy wounded, holy feet.

JEHANGIR J. VAKIL.

THE TRUE NOTION OF ARCHITECTURE.

A GREAT deal of confusion exists at the present time about the real idea of architecture. It was the habit of writers in the 16th century to speak of Painting, Sculpture and Architecture as three similar or identical arts. This was mainly due to the fact that in a fatal hour painters and sculptors undertook also the practice of Architecture and Builders ceased to be Architects. This confusion of ideas has been perpetuated to the present hour and it cannot therefore be too strongly insisted upon that there is no essential connection between painting and sculpture on the one hand and architecture on the other.

While this is the confusion brought about by the more aesthetically-minded people, there are others on the other side who presume to think that 'Building' and 'Architecture' are essentially the same thing. The difference between these two is, however, so obvious that it is difficult to conceive how the misconception could have arisen. Anyhow there it is and it has therefore to be nailed to the counter.

It is true that without building we cannot have architecture, any more than without language we can have literature ; but building and language are only the material, neither of them is the art which works upon that material and is responsible for the production of such monumental buildings as the Taj at Agra and the Parthenon at Athens (or such monumental works as the *Sakuntala* of Kalidasa or the *Hamlet* of Shakespeare). Building is therefore not a fine art any more than mere speaking or writing is eloquence or poetry.

It is strange that many writers have defined Architecture as the art of building according to rule ; just as well might they define Eloquence to be the art of speaking according to grammar, or Poetry the art of composing according to prosody.

Ruskin, a great authority on Architecture, defines Architecture as "the art which so disposes and adorns the edifices raised by man, that the sight of them may contribute to his mental health, power, and pleasure." Or, in short, Architecture is "building greatly refined upon," i.e., elevated to the rank of an art by being treated aesthetically or artistically. Architecture is therefore building with something more than a view to mere utility and convenience, it is building in such a manner as not only to delight the eye by the beauty of its forms, but also to captivate the imagination and make a strong appeal to the higher self in man.

The function of a mere builder therefore ceases after merely putting materials together so as to attain the utilitarian end in the

speediest and simplest fashion. The art of the Civil Engineer consists, however, in selecting the best and most appropriate materials for the object in view and using these in the most scientific manner, so as to ensure an economical and yet satisfactory result. Where, again, the engineer leaves off, the architect begins. His object is to arrange the disposition of the materials of the engineer with regard to artistic effects and by light and shade, and outline, to produce a form that in itself shall be permanently beautiful.

Architecture may therefore be said to contain the elements of the three different divisions into which all the arts can be generally divided. Arts like painting, sculpture, poetry, etc., may be ranked as "Phonetic Arts." Their business is to appeal by colour or form or words to the imagination and the higher self in man. They have absolutely no utilitarian value, inasmuch as they are incompetent to minister to the elementary wants of man such as food, shelter, clothing, etc. The Phonetic Arts lift the man on to an altogether higher plane by appealing to the higher self within him. They may be said to be soul-stirring.

Diametrically opposed to this group is another group of arts, known as Technic Arts, which comprise all those which cater to the primary needs of man, such as food, clothing, etc.

Between these two extreme groups there is yet another, which may be styled as 'Aesthetic Arts,' which act as a sort of flux, as it were, between the two extremes. These minister to the senses of man, to something more than the mere brute in him. These elevate the Technic Arts into what may be termed the Fine Arts.

One can easily satisfy the mere craving for shelter by erecting huge stables and pounding in them groups of human beings together. But ornamental and ornamented shelter or Architecture is one of the most prominent of fine arts and will elevate the stables to the dignity of a magnificent palace. Music, though hardly useful as a Technic Art, is the most typical of Aesthetic Arts and "married to immortal verse" steps upwards into the regions of the Phonetic Arts.

Architecture, therefore, in its highest form includes in an *equal* measure, but not necessarily so, all the three Technic, Aesthetic and Phonetic elements. The Pyramids of Egypt, for instance, though technically the most wonderful buildings in the world, have very little Phonetic and practically no Aesthetic value. They are huge masses, the very mechanical size of which may create wonder, but certainly can neither appeal to the eye as beautiful nor strike a higher note in our mind, except by way of its antiquity. Our ancient temples on the other hand are not only admirable as mechanical structures, but the minute working of even the smallest detail in them, the disposition of their parts, the

light and shade, the cornices and string-courses, the proportions of height, length and breadth, the breaking of one monotonous line both in plan and elevation, etc., add to the Technical also an Aesthetic value; further, by their sculpture, which, in temples like the celebrated ones of Halebid and Belur, is executed in the minutest detail on every inch of space on both the plinth and the superstructure, an additional Phonetic value is given to these temples, which certainly therefore must be ranked as a much higher Architectural work than the Pyramids.

The excellence, however, in Architecture is reached by buildings like the Taj at Agra and the Parthenon at Athens. No building in India has been so often drawn and photographed or more frequently described as the Taj. But with all this it is impossible to convey an idea of it to those, who have not seen it, on account of its extreme delicacy, the beauty of material employed in its construction and from the complexity of its design. It is the combination of so many beauties put together and the perfect manner in which each is subordinated to the other, that it makes up a whole, which the world cannot match, and which therefore strikes the imagination of even the most purblind to Architectural conceptions. With the Jumna in front and the well-laid garden with fountains in the rear, with its own purity of material which is wholly marble and the marvellous grace of form all its own, the Taj may well challenge comparison with any creation by man of the same sort in the whole world.

In these typical buildings, it must be noted, however, that the technic, aesthetic and the phonetic values are about in equal proportions, since a monumental building should not only appeal to the eye and the imagination, but also exhibit an equal measure of perfect scientific and technical skill. It is easy to conceive a building, such as a trophy or a mausoleum, in which painting and sculpture may give a relatively higher phonetic value, but then, they cease to be classed under works of Architecture and step into the domain of sculpture or painting. The justification for writing this article lies only in the fact that there is a sort of anarchy at present in Architectural doctrine and taste in our country. While, therefore, there are some who want to stick to the old orthodox styles of temple and house Architecture, there are others, the so-called intelligensia of the modern days, who are whole-hoggers and want everything Western not only in their dress and habits but also in Architecture. A craze for the Western Architecture has commenced and we therefore see in these days our public and private buildings tawdry imitations of the West, without either understanding their or our own genius for Architecture. The Gothic and Norman styles, and all the Classic orders are therefore being introduced *ad nauseam* in our public

buildings. It is therefore high time that we understand the true meaning of the Architectural styles of both the East and the West, and by the proper blending of the Phonetic elements of the East with the Technic elements of the West, create a new style, which shall be the model for generations to come.

K. D. JOSHI.

SOME ANCIENT LIBRARIES.

WE may fairly well surmise that the passion for collecting books almost synchronised with the discovery of the art of writing. According to Professor Sayce, the earliest library so far known to us is that of Sargon I of Accad who flourished about 3800 B.C. The name of the keeper of this library is said to be Ibni Sarru, and one of the famous astronomical works that this library contained was known as "The Observations of Bel," which has come down to us. Antiquarian researches carried on by Sir H. Layard, P. E. Botta, C. T. Rich, Sarzec and others have revealed to us the existence of extensive libraries in different parts of Babylonia and Assyria. While carrying out his explorations on the ancient site of Nineveh in 1850, Layard came upon vast heaps of broken square tablets of mud measuring one to twelve inches and containing cuneiform inscriptions on each. They have since been deciphered and the entire collection is now ascertained to have belonged to the library of the Assyrian monarch, Assurbanipal. On a tablet relating to a grammatical treatise of this monarch is found the following statement : " I have written it upon tablets . . . I have placed it in my palace for the instruction of my subjects." A considerable portion of this library has now been deposited in the British Museum. Similar collections have since been discovered at Tello, Nippur, Sippara, Susa, Bysmia and other places and deposited in a number of European museums, including the one at Constantinople.

Egypt was highly civilised as early as three or four thousand years before the Christian era. The early Egyptians employed a sort of pictorial alphabet—hieroglyphics—for writing purposes. The hieroglyphics have now been deciphered and several interesting facts have been discovered. From some of the discoveries made several years ago, it is found that kings and nobles of this land had special officers to record political and domestic events. Each of the magnificent temples in this land of the Pyramids had its own scribes and library containing religious works and commentaries thereon ; but many of these libraries do not seem to have been open to the public. Reference to the earliest public library of Egypt occurs in the writings of Diodorus Siculus, a Greek historian of the first century B.C., who says that the library of Rameses II (1300-1236 B.C.) was known as the " Dispensary of the Soul," or the " Medicine of the Mind." Explorations of Egyptian archaeologists have brought to light remnants of vast libraries that existed at Heliopolis, Mendes, Thebes and other places.

By far the most famous ancient library is that of Alexandria founded by Ptolemy I in the fourth century B.C. As is well known Alexandria soon after its foundation by Alexander the Great in 332 B.C. grew in educational and commercial importance and attracted ambitious scholars and enterprising merchants from far and near. The successors of Ptolemy I vied with one another in enlarging and beautifying their capital. Ptolemy II is said to have constructed a separate building for storing books and to have sent Demetrius Phalereus and other scholars to distant countries for collecting manuscripts. This king also appointed Zenodotus as the first librarian and got two catalogues prepared. Zenodotus's successor Callimachus prepared a more elaborate catalogue classifying the books in the library into 120 groups. Ptolemy Evergetes was so enthusiastic about the development of his library that he ordered all the manuscripts found with foreign visitors to Egypt to be confiscated, and the helpless owners had to be content with copies of their manuscripts or even with some other superfluous manuscripts given in exchange for their own. When Athens was writhing in the grip of famine, the Athenians implored this sovereign to save them by sending them wheat from Egypt. The Egyptian monarch took advantage of their situation and demanded the autograph copies of the dramas of Aeschylus, Sophocles and Euripides for the Alexandrian Library. When the Athenians hesitated, Ptolemy Evergetes deposited 15 talents with the Athenians as security and got the manuscripts on loan. Faithful copies of the manuscripts were prepared in a short time and the original manuscripts were sent back along with bountiful supplies of wheat. The king generously allowed the Athenians to keep the security money also for themselves. The Athenians too seem to have appreciated the generous gift of the Egyptian king and to have presented the original manuscripts of their famous dramatists to the Alexandrian Library.

One of the succeeding Ptolemies founded another smaller library at Alexandria, and both these libraries flourished for some centuries. With a view to secure sufficient supply of papyrus for home use, the Ptolemies forbade the exportation of that material to foreign lands on pain of severe punishment. The zeal shown by the Ptolemies for developing their libraries was contagious and many monarchs of other lands imitated them in maintaining their own collections of books. The kings of Pergamus seem to have accumulated as many as 200,000 volumes in their library. Cleopatra succeeded with the help of the Roman general, Antony, in securing this vast collection for the Alexandrian Library. Different estimates have been given by different writers about the total number of volumes in the two libraries of Alexandria. One writer estimates them at 400,000, another at 538,000 and yet another at

700,000 volumes. When Julius Cæsar set fire to the fleet at Alexandria, the conflagration spread to the quarter containing the larger library and destroyed a portion of it; but this damage was soon repaired by the munificence of the Egyptian sovereigns. The intolerance of the Roman Emperors, Aurelian and Theodosius, exposed the libraries again to fire and pillage, and thereafter the grandeur of the libraries went on waning from century to century with some rare and short intervals of feeble revival.

A sad story is related about the final fate of the Alexandrian Libraries. When the Saracens captured Alexandria in 641 A.D., the libraries seem to have suffered very badly. The Saracen Commander-in-Chief sent word to his master the Calif, about the success of his arms and prayed for orders regarding the disposal of the vast collection of books. Calif Omar is said to have issued orders for the destruction of the whole lot of books, stating that if no new idea was found in the books they were not worth preserving, and if, on the other hand, any new idea was found in any of the books, such works were worthy of destruction, as they were against the teachings of the Holy Koran. Some authorities, however, who rely on the love of learning displayed by the Saracens discredit the story. Be the truth what it may, the fame of the Alexandrian Libraries seems to have passed away for ever after the capture of Alexandria by the Saracens.

The earliest attempt in Greece at organizing a public library is that of Pisistratus at Athens. He assiduously collected a large number of manuscripts and deposited them in a separate building and left it for public use. He is said to have brought together the works of Homer which differed greatly in their version from place to place. Pisistratus employed a staff of scholars for fixing the readings and sequence of the narratives in the Iliad and the Odyssey. When Xerxes invaded Greece, he is said to have plundered this library and carried off a large portion of it with him to Persia. Seleucus Nicator, the antagonist of Chandragupta of Magadha, restored to the Athenians those books that had been carried away by the Persian invader. Polycrates, the tyrant of Samos, who was a contemporary of Pisistratus, and Nicocrates of Salamis in Cyprus had also made good collections of books for the use of the public but not much is known of these libraries. Euripides, Plato, Aristotle and Euclid had also good libraries of their own. According to Strabo, Aristotle was the earliest Greek writer who had a good private library. He is said to have bequeathed it to his favourite disciple, Theophrastus. This library ultimately fell into the hands of Sulla who carried it off to Rome.

The Romans, who were indifferent to arts and literature at the beginning, began to take interest in these subjects when they became well

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acquainted with Greek civilisation. When Carthage fell in 146 B.C. the library found in that city was distributed among a number of African tributary chieftains, and a portion of it was given to the Roman General Scipio. Only one treatise on Agriculture, was, however taken to Rome for being translated into Latin. Paulus Aemelius, the Roman General who conquered Macedonia, was a greater lover of books, and he got the whole library of Macedonia removed to Rome. After his war in Africa Julius Cæsar removed a portion of the Alexandrian Library to Rome with the object of founding a public library there; but before he could achieve his object he fell a victim to Brutus's dagger. Cæsar Augustus who succeeded Julius Cæsar established two public libraries in Rome, but both of them were destroyed by fire some time later. Some of the subsequent Roman emperors such as Tiberius and Trajan were also interested in forming public libraries, and besides erecting decent buildings for them they spent large sums for beautifying them with porticos, galleries, marble floors and statues. Attractive parks with "shady walks and refreshing baths" were also laid out, and they became the favourite haunts of many famous Roman scholars of the time.

The example set by the Roman emperors was followed by many famous Roman citizens. Among the private libraries those of Lucullus and Crassus deserve mention. These noble men spared neither effort nor money for making their libraries famous and attractive. Plutarch says that no educated Greek nor Roman of the time failed to spend some portion of his leisure in these libraries. Cicero too had a private library which was very famous among the educated circles of his day.

Among the countries noted for their ancient civilisation China occupies a prominent place. Writing was known in that country in very early times. Some authorities are of opinion that paper was used as a writing material in that country even previous to the second century B.C. Yet not much is known of Chinese ancient libraries. Every one of the Royal courts in that land seems to have had its own historiographer and archives and every one of the Chinese temples its own scribes and religious works and commentaries. Confucius brought together a series of ancient documents relating to his native province, Lu, from 722 B.C. to 479 B.C., the year of his death. His religious teachings were embodied in several treatises which have come down to us. A decree of the Chinese emperor passed in 221 B.C. on the suggestion of his prime minister for the destruction of books involved vast stores of books in ruin, but fortunately the adamantine zeal of some book-lovers rescued a few works, including those of Confucius, from the ruthless destruction. Not even the most horrid threats of punishment

could dissuade the book-lovers of the times from rescuing a portion of their literature by hiding those works in the midst of bricks built into walls.

The case of India in respect of ancient libraries is somewhat peculiar. The art of writing was known to the Indians much earlier than Asoka's times. References to writing are found even in the Vedas. Megasthenes and Neorchos say that the art of writing was practised in India in their days but works written prior to the Christian era are not much in evidence. Some manuscripts of the first century of the Christian era have recently been discovered in Central Asia. As it was a universal custom among the ancient Indians to commit all their learning to memory and to hand over their knowledge through oral instruction from generation to generation, there was not much need to organise libraries especially of a public nature in Ancient India. The few small collections of books that existed here and there were confined to monasteries and *muths*.

During the early centuries of the Christian era the few libraries that existed in Europe were mostly confined to monasteries. Not even great kings could boast of big libraries of their own. Charles the Great's library contained about one or two scores of books and they were, according to his wishes, sold at his death and the sale proceeds were given away to the poor. The library of Louis IX who zealously got copies of manuscripts made out by special scribes after the fashion of the Saracens contained only 756 books. Even these books were given away at his death in 1270. In 1364 Charles V inherited only 20 works when he ascended the throne of France. It was his unremitting zeal that enlarged his royal library which at his death contained nearly 900 volumes.

Even in England kings had no good collections of books of their own. King John appears to have borrowed some works from a monastery leaving some other volumes there as security. The Oxford University Library at the end of the thirteenth century contained a few books kept in one or two chests.

There were many small book-collections in Germany, but almost all of them were confined to monasteries. In the library at Munich there exists a collection of 600 catalogues of works found in old German monasteries.

It is only after the art of printing came into wide use that libraries, both public and private, sprang up in large numbers in all civilised countries. But it is rather the modern methods of library organisation than the book-collections themselves that attract our attention nowadays.

WIDOWED.

Her pillow with her tears is wet,
All night unwooed of sleep she lies,
She laughs and smiles all through the day
But all the night she weeps and sighs.

The evening star's white radiance brings
Before her eyes the happy day,
When, clad in bridal garments, she
Stood gazing on the self-same ray.

The odours of the *champa* groves
Remind her of her wedding day,
When, decked with those impassioned blooms
She heard the sweet lute's melting lay.

The glistening bangles jingle not
Upon her youthful wrists and round,
No more upon her forehead white
The sweet vermilion mark is found.

How changed the world is now to her
All dark, cold, weary, joyless, void,—
Her soul within her struggling lies,
Her hopes are blasted, life destroyed.

N. MADHAVA RAO.

SCIENTIFIC WORK IN INDIA.*

WHEN we compare one country with another in regard to any particular aspect, we are apt to draw inferences just as though other things are equal. Other things are never equal between any two countries, even between countries like yours and England which have so much in common. When you compare a country like India so different from yours in her civilization, social and religious institutions and past history, there is hardly a point of contact, and one who ventures to dwell on a particular feature runs the danger of raising a whole crop of misunderstandings. My country has suffered in the past and still suffers from so many serious misconceptions that I should not add to them. If therefore in the course of my remarks I have to stray a little beyond the actual limits of my subject it is to give facts their proper setting so that wrong inferences may not be drawn.

India has always been spoken of before as the land of Philosophy where science has not flourished. This is a part of the general statement applied to the East as a whole. In almost every book on the East you will find the well known but hackneyed quotation from Matthew Arnold:—

“ She heard the legions thunder past
And plunged in thought again.”

Indeed judging from the contributions India has made to the philosophical thought of the world the statement may appear not far out of the mark. She has anticipated by several thousands of years philosophical conceptions which the West reached only late in the 18th century. As early as a thousand years before Christ four elaborate systems of philosophy had been perfected. The philosophy of Kant is but the philosophy of Sankara stated in a different way nearly six centuries earlier. Schopenhauer was inspired by the Vedanta of which his system is only an elaboration. To judge from these facts Indians certainly have a philosophical acumen of no mean order. But if by that is implied that to the extent of that capacity scientific aptitude is diminished I want to join issue. The capacity for philosophical speculation and capacity for scientific research are not certainly mutually exclusive. If the mind can submit to intellectual processes ideas, whose limits are not easily defined, it can with greater facility submit to the same processes scientific facts whose limits are much more easily set and defined. Nor need the same individual be both philosopher and scientist. Philosophy

* Lecture delivered at the Leland Stanford University, California, U.S.A.

and science are different branches of intellectual activities, and the fact that some have followed one line does not prevent others from following the other. The supposed antagonism receives no support from the intellectual history of Europe. The fact that most of the prominent figures in the philosophical thought of Europe are Germans has not prevented them from taking an equally prominent place in scientific research.

The causes for the preponderance of philosophical activity in India have to be sought elsewhere, and I think they will be found in the unfortunate political history of the country. For a thousand years India has had no government of her own for any length of time. Since the Mahommadan invasion the country was in one turmoil after another turmoil, until the British became the predominant power. In the period of Hindu sovereignty the advance made in the sciences was remarkable. We are apt to forget the value of the early steps made in the various branches of human learning—learning which made further progress possible. With each ascent we make we come upon a more enlarged horizon and are so absorbed in the prospects of research opened out that we forget the steps by which the ascent was made. That is how it happens that the contributions made so early by India are forgotten and she has now to face the charge of dwelling too much in the clouds. But that charge is easily repelled. The numerals which you use to-day are Hindu numerals and the system by which the 9 numerals suffice for representing figures, however large, is again Hindu. One has to compare the cumbrous Roman system to the much simpler Hindu notation to measure adequately the simpleness of the method. Indeed it has been acknowledged that the progress of mathematics has been greatly facilitated by the simple device of placing numerals in the 10th, 100th place, etc., to denote numbers running into two, three or more figures. The decimal system again the world owes to the Hindus. While it has been introduced in the coinage of the West only recently, in parts of India it has been in existence very much longer, unknown to many and in spite of serious hindrances. The Indian rupee consists of sixteen annas or hundred and ninety two pies and therefore does not allow of the decimal system. Yet in the part of the country I come from the people have applied it by regarding the Rupee as equivalent to 200 pies when of course decimal notation can be applied. I remember once a friend of mine purchasing a large number of bananas from a vendor and making a mental calculation of the amount due in less than half the time I should have taken to do with paper and pencil. When I asked him how he calculated so easily so complicated a figure he showed me his method and he had employed the decimals. I had of course been long

aware of the practice of treating the rupee as equivalent to 200 pies, but until that morning I had no idea of the object of so singular a procedure. How helpful the system must be to the illiterate classes I need not dwell upon.

With so acute a mathematical instinct the Hindus made considerable progress in all the exact sciences. In arithmetic they were supreme. Algebra owes its origin to the Hindus, and they had made considerable headway when the Arabs borrowed it and made it available to the West. In geometry an equally striking progress was achieved. In the construction of Hindu altars very elaborate calculations had to be made, involving problems of finding a square equal to the sum or difference of two other squares, a square equal to a gnomon and a square equal to a circle. These problems representing advanced geometry were solved in the "*Silpa Sastras*" whose origin is long anterior to that of Grecian geometry, and it has been authoritatively stated that Pythagoras borrowed his geometry from the Hindus. In astronomy also the Hindus made considerable advance.

In the field of medicine they were far ahead of the Greeks and their supremacy was acknowledged by the Greek historian, who records that they were able to cure a great number of diseases which the Greeks were not able to do, and Alexander the Great is known to have had two Hindu physicians to attend on him. Two very ancient works on Hindu medicine and surgery are known as *Charaka* and *Susruta*. In *Susruta* descriptions are given of no less than 127 surgical instruments. In *Charaka* emphasis is laid on anatomical study and directions are given for dissecting the human body after allowing it to float on a stream for seven days. This latter fact is one refutation of the popular impression that the Hindu mind has a prejudice against the examination of the concrete. The administration of metal compounds internally originated with the Hindus. The use of arsenic in fevers has been long in use in India, so also mercury against venereal poison.

The science of chemistry was developed in connection with the preparation of these chemicals and cosmetics. The History of Hindu Chemistry has been written by the foremost of the Indian chemists, Sir P. C. Ray and I would refer those interested in the subject to his fascinating volume.

In the field of natural sciences the Hindus did not make any progress. The classifications of animals and plants are very crude. It seems to me possible that this singular lack of interest in this branch of knowledge was due to the love of animal life. It is difficult for Westerners to realise how deep it is among Indians. The observant traveller will come across people trailing sugar as they walk along streets so that ants may

have a supply, and there are priests in certain sects who veil their face while reading sacred books that they may avoid drawing in with their breath and killing any small unwary insects.

In the field of psychology and logic the pre-eminence of the Hindus is universally acknowledged. Mesmerism, telepathy and other phenomena were long known to them and the system of Hindu logic was in several respects superior to that of Mill. In grammar the discovery of the origin of the words from simple roots was made by Panini, the greatest of grammarians and his treatise is so perfect and has so regularised and methodised the Sanskrit language that it has been aptly called a "Compact Wonder."

What I have given is but a very brief summary, but it is more than sufficient to prove that when Hindus had a Government of their own, intellectual activity was many-sided and profound. With the advent of Mahommadans a change took place and then commenced a period of sterility in regard to scientific pursuits from which they have not recovered. Science can flourish only in periods of political tranquility and general prosperity and both were denied to the Hindus for many centuries to come. Those of you, who have read European history, can realise how political confusion makes for intellectual stagnation. The Middle Ages of Europe have been aptly called the Dark Ages because the lamp of learning was all but extinguished during that formative period of European kingdoms. It was not until the Saracens were driven back from Spain, and Europe settled into peace and order that the sciences flourished. In India a similar phenomenon can be noticed. The lava from Islamic eruption overflowed not over Europe alone but India also, but whereas Europe finally escaped from the devastation, India never succeeded. There are deep causes to explain this divergence which it will take us too far and too long to go into. It is sufficient for my present purpose to show that the further development of Hindu sciences became impossible under the foreign rule to which she became subject. For nearly a thousand years after there has been no Hindu revival sufficiently long enduring to create anew the enthusiasm for the pursuit of knowledge.

With the advent of British power an entirely new order of things came into being. Political confusion of the country soon came to an end, and an orderly administration was developed which gave to the country the tranquillity and security it needed. The earlier administration saw the necessity of giving Western education to Indians, and schools were established. But this liberal policy did not take into account the indigenous culture of the Indians. The authors of the educational policy had a great contempt for Indian learning and wisdom and in

developing their machinery they did not allow an adequate share to it. The education imparted was destructive rather than creative. The model chosen for the Universities was that of London, where research was not organised or encouraged and degrees granted on results of examinations rather than of the class room.

Nor were the men recruited for the educational service well qualified for the duties they had to perform. Raw graduates from British Universities were the men to teach sciences and literature. The long course of research and probation necessary for a man to be advanced to professorial rank in this country was not insisted on in their case. They were professors immediately they were recruited into the service and thereafter they rose to the maximum pay by annual increments, which did not depend on any evidence of educational ability or scientific research. In such an atmosphere a stimulus to research is entirely absent. The professors prepared the students for examinations in which they were themselves the examiners. Students were bound to miss under these circumstances the best part of education, which consists not in developing a passive receptivity of mind, but in rousing those healthier responses to environment, in giving not so much knowledge, but the means to acquire knowledge. The education thus obtained tended rather to fit Indians to be clerks and hold minor administrative appointments. In that limited line they have done admirably. Indians lagged behind partly from the deficiencies of a purely literary education, and partly from want of opportunities. The best among the Indians had nothing to hope for except the role of a subordinate officer taking orders from a superior officer. The men who came out first in the University lists and repeated their achievements even in England had too often to accept positions under English officers by no means their intellectual superior. That such an arrangement should make for indifference and discontent is to be expected.

This brief survey of educational system will explain why there has been so little achieved by Indians in the field of research. In spite of these features a few have come to prominence—Sir J. C. Bose in physical science, and Sir P. C. Ray in chemistry, and Prof. C. V. Raman, a distinguished graduate of my university, has also earned considerable reputation in the field of acoustics. Another, Ramanujam, acknowledged to be a mathematical genius and the first Indian to become a Fellow of the Royal Society was lost to India recently by his untimely death. In this connection it is interesting to recall as an instance of the failure of Indian Universities to discover and develop talent where it exists that the Madras University did not think Ramanujam qualified to pass its First Examination in Arts. These distinguished men have

become what they are not so much on account of the education as in spite of it, nor is the worth of a University to be measured by the few that attain greatness. Geniuses are superior to the limitations of any system. The value must be measured by what the University does for the average man, and judged by this test the educational system has been a failure.

With these preliminary observations I pass on to the scientific work now being done in India. It may be divided under three heads: (1) Governmental, (2) Quasi Governmental and (3) Private. Under Government agency has to be included all work done in the agricultural, veterinary, medical and fishery departments. Here again the higher appointments are all in the hands of Europeans, the Indians being only assistants. Most of the results obtained are published by the superior officers. In the agricultural departments scientific work is carried on in all branches of agricultural research and considerable results have been obtained. The medical research is concerned mainly with vaccines, serum, therapy and malaria. In the veterinary department diseases of cattle are being investigated.

The quasi Governmental agencies are the Universities. The research side of education has only been recently emphasised and even now the opportunities for research given to students are very few but a beginning has been made, and Calcutta has led the way. There through the generosity of a few distinguished Indians endowments have been made for research and in many branches there are now very capable men engaged. One important large research laboratory is the Tata's Institute of Science at Bangalore where the students are provided with facilities for research in applied science. The institution was founded by a Parsee millionaire about 20 years ago and great hopes were raised at the time. But for several years results were out of all proportion to the endowment and grave complaints were made. Enquiries were made and the institution was given a fresh start and it is now turning out better work than it did in the first few years.

I come to the last heading—the work by private individuals. Though I deal with it last it is the first in importance. Under it has to be included all the work done by individuals who are not in Government employment or who being government servants devote their leisure hours to science. A number of missionaries come under this category. They have done considerable work mainly in the natural sciences. There are also medical men who devote their leisure hours to science. The discovery of the transmission of malaria was made not during the course of Government work. These men have not received much encouragement for research or reward for research, but they deserve the highest praise. European officials in other walks of life have made signal contri-

butions to science. The fascinating volumes of E. H. Aitken and Douglas Dewar are the result of observations made in the field of natural history in the course of official duties. Men like these have formed themselves into an association, and a journal is published by the Bombay Natural History Association, in which valuable observations are recorded from time to time. That publication has been running for over a quarter of a century, and its volumes are a mine of interesting information with regard to the natural history of India.

This then is a brief survey of the work done in India. As you will see it is very little, regard being had to the extent of the country and the size of her population. I have tried to explain why Indians' contribution is as yet so little, how education has been defective and how opportunities have been few. Men do not go after scientific research when reward is so little and facilities so few. But there are those who will say that science must be pursued for its own sake. That view is narrow and does not take into account the origin and course of scientific research. Men began to pursue science for the sake of material progress. The Arab alchemists started chemistry in the hope of discovering a method of making gold. So it has been all along and even now in the 20th century the cry is often heard that scientific research is pursued with too little regard for its immediate usefulness to man. The passion for science for its own sake has developed largely as a result of the enormous growth of each of the sciences beyond the grasp of individual minds so that a division between pure and applied science has become necessary. The charge therefore that Indians have failed to pursue science for its own sake is not justified. Science flourishes where the application of its results makes possible the advancement of the individual and the community as a whole. It requires a leisured class free from anxieties of obtaining livelihood or capable of appreciating the value of scientific work. Such a class does not exist in India. The leisured classes in India are not yet educated sufficiently to honour scientific men. Nor are the few who are qualified for research sure of a reward in material advancement or of appreciation of their work. But these are after all minor obstacles. The more serious difficulty is that there is as yet no opportunity for the application of scientific results. The country is still in the stage of producing raw materials. When these are allowed to be converted to finished articles the opportunities for research in applied science will come. There will also be greater diffusion of wealth in the country, which will make for a class of people, who have the time to make researches and who may rest assured that their work will be appreciated by a large section of their own countrymen. Such inducements do not

exist at present in a large degree. When they do and when the obstacles that I have described are removed, I have no doubt that the Hindus will bring to the prosecution of science the same sustained interest, the same intelligence that has made the progresss of science and its application to the comforts of man so conspicuous, so astonishing a feature of Western civilisation.

K. KUNHI KANNAN.

REVIEWS.

The Evolution of the Conscious Faculties. By J. Varendonck, pp. 259. George Allen and Unwin, Ltd., 1923. Price 12/6 net.

THE principle of evolution is the dominant thought in the intellectual life of the present, and considerable interest has been shown in late years in the application of this principle to the domain of the mind. Studies of animal behaviour, either purely observational as those of Romanes and the Pekhams, or experimental as those of Thorndike and Lloyd Morgan, or biological as those of Jennings and Driesch (not to speak of the purely speculative studies of Bergson and others), point to the massive solidarity running through the whole gamut of animal existence. But an evolutionary study of the mind involves certain problems which can be solved not by science but by speculation more or less. Some such problems are : When could consciousness be said to begin in the evolutionary series ? What is the nature of the first consciousness ? What is the nature and relation of intelligence and consciousness ? Answers proposed by different writers present, therefore, considerable disagreement.

The study under review attempts to answer mainly the last question, and from the point of view of the New Psychology. It possesses, therefore, special interest at the present day.

Intelligence, according to the author, "consists in the whole of the psychic operations, which in their turn consist in reviving certain recollections under the stress of wish or will most often to reassociate them and to repress others which are not useful to the end in view" (p. 223). And consciousness is "that part of intelligence which is organised for the reaction against the outer world, for the adaptation to the non-ego" (p. 223). This answer was implied in the author's earlier book "The Psychology of Day-Dreams," where he showed that the mind is the seat of abundant intellection without the intervention of consciousness. But he develops it in the present book and attempts to show that the mechanisms of thought at the conscious level are essentially of the same kind as those at the foreconscious and the unconscious level (although he passes over the phenomena of unconscious ideation as a subject of pathological psycho-analysis), and that the difference is of degree only, this difference being brought about by the characteristic biological function of consciousness.

To indicate briefly the development of this thesis, the author starts implicitly from the two fundamental factors of the biological situation,

viz., the ambiance with its excitations and the vital impulse with its reactions, and then traces the development of the mental organ as the outcome of the interaction between the two. Conservation or retention is taken, as usual, as the basis of psychic development. The most primitive form of psychic memory is "a faithful replica of the actual experience." This was called "Mneme" by R. Semon, but the author chooses to call it "Reduplicative Memory," and devotes the first chapter to a consideration of this "so long-slighted faculty." But its "tendency to accumulate experience indiscriminately" and to unroll it equally indiscriminately which (adopting a term naturalized in Psychology by the late Dr. Rivers) we could characterize as "protopathic," is disconcerting for adaptation, and an "epicritic" form of memory, here called "Synthetical memory," supervenes at a higher level of evolution. The affect ("wish") or the will, acting as the exciting cause, selects items from the reduplicative memory and brings them into logical relationships. This form of memory reveals its presence primarily in the process of perception and is in turn enriched by it. Synthetical memory and perception, as determined by effect, are considered in the second chapter. Conception (as including also the other two traditional precesses of judgement and reasoning) utilizes now reduplicatively, now synthetically, the results of perception, and attempts "a new grouping of old elements, following an ancient relation" (p. 128). Affective conception is treated of in the following chapter, and it may be remarked by way of parenthesis that chapters 2 and 3 dealing with affective thinking retraverse the ground covered in the earlier book. Affective thinking actualizes in unconscious movements, as the author shows in the fourth chapter, but it does not tend towards adaptation to the outer world, it subserves only a more immediate subjective aim, and hence it belongs only to the unconscious or the foreconscious level of mental life. In the next chapter is discussed the incidence of consciousness in connection with the need for accommodation to the everchanging nature of reality when habitual acts resulting from reduplicative memory or affective ideation are inadequate or unsuited. The conscious faculties utilize only such syntheses as are turned towards the reaction against the outer world; and consciousness, rudimentary and discontinuous among animals, becomes clear and continuous in man. The ultimate phase of development is reached in self-consciousness, which gives knowledge of the internal phenomena in the same manner as outer awareness gives of the exterior excitations; in other words, the psychic emphasis has passed from the non-ego to the ego.

In summing up the author indicates: "Mental evolution, which

has ended at human intelligence, can be described by distinguishing four successive stages Unconsciousness; Foreconsciousness, Outer Awareness or Consciousness, and Self Consciousness or Awareness" (p. 250). It is needless to note that the transition from a lower to a higher level is marked by repression of reactions belonging to the former. "Unconsciousness and Foreconsciousness co-exist from origin At the following stage there is co-existence of the first three states In man there is co-existence of the four states" (p. 250). But by this last statement the author does not commit himself to "the doctrine of recapitulation."

The method of presentation is inductive, and many of the illustrations are taken from the author's own experience. The central point of this book—the distinction between intelligence and consciousness—is thrust into the foreground in every chapter and often in several places in the same chapter. This is perhaps partly responsible for some discursiveness in treatment. Another feature of this book is that there are extended references to child psychology and the educational implications are developed in almost every chapter, so that the book is not without interest even to students of education.

M. S. M.

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The Ethics of Feminism. A Study of the Revolt of Woman. By A. R. Wadia, B.A. (Bombay and Cantab.), Barrister-at-Law, Professor of Philosophy, University of Mysore. London: George Allen & Unwin, Ltd., Ruskin House, 40 Museum Street, W.C. 1. 10/6 net.

SEEING the extensive literature which already exists dealing with the subject of Women's Rights or Feminism, to give it its more modern and scientific title, the question whether there is room for another book on the subject may fairly be raised. But a careful perusal of the book under review shows it has features which amply justify its publication. The author strikes a happy and exceptional compromise between the extremists who advocate or who denounce the women's movement in no unmeasured language. Common sense, sane judgment and moderate expression mostly characterise the author's treatment of his subject. Within reasonable limits he is all for progress in the cause of women, but he sees clearly that the rapid development of individualism and economic independence among women is leading straight to the undoing of motherhood, and that to him is anathema. That crowning function of woman, exercised in the sanctity of the family, it is the author's mission

to proclaim, and he does so in no uncertain tones and in eloquent outbursts throughout the book. The publishers say that the main interest of the book "lies in the fact that it is written from the point of view of the Indian conception of the family," and this is an additional justification for the publication of the book. The work is also a fairly complete handbook on the subject of Feminism, not entirely complete, because the author modestly refuses to discuss the position of women in countries of which he has no personal experience. But take it all in all, the book is one of the very best on the subject, and it is bound to take a leading place among the most prominent works dealing with women's rights.

There is a striking inconsistency, not sufficiently emphasised by the author, in the attitude of many Feminists who, while claiming definite political rights on the score of intellectual equality with man, at the same time demand the continuance of deferential treatment, based on sentiment and tradition and the acknowledged weakness of the fair sex. This deferential treatment is displayed in many social amenities and not infrequently in a partial administration of the law. But there are not wanting indications that with the advance of women's claims, the sentimental regard on the part of men is weakening. The author in his chapter on The Passing Away of Old Ideals says that a wise Providence in Europe, in strong contrast to the practice in India, favours the differential treatment of women "Does she enter a crowded bus or tram-car? Immediately a man springs up to his feet, off goes his hat, and the lady with a sweet 'thank you' takes the seat." This is by no means in keeping with the experience of the reviewer who has repeatedly seen women, young and middle aged, standing in buses and trams with men sitting as a matter of course. Indeed, the reviewer himself has on several occasions been offered a lady's seat. And the recent execution of Mrs. Thompson, an instigator but not an actual murderer, points strongly to the weakening of the sentiment which favours women in the administration of the law. Feminists cannot have it both ways!

One cannot but admire the persistency and tenacity of the author in pursuing his main object of upholding the sanctity of motherhood. Whatever subject he is discussing, whatever theory he is criticising, his final object is always kept in view, and his methods for attaining it are most carefully thought out. Provided the supply of mothers is not injuriously diminished, and engagement in the professions does not encroach on the absorbing and sacrosanct duties of motherhood, facilities should be given to women for entering the professions, especially those of teaching, nursing and medicine. But the ordinary normal woman must devote her life from the age of twenty to forty-five or fifty

to the duties of motherhood, after which she will be free to take up work in the outside world! Does Professor Wadia seriously think that an inexperienced woman of forty-five or fifty would have any chance for a suitable appointment? Every avenue would be closed to her. The author would prohibit the Bar to women; there are lawyers enough already. But in India at least, where the purdah system prevails, a modest supply of women as legal advisers would not be a disadvantage; and it would be interesting to know what Miss Sorabji, a distinguished lawyer and a country woman of the author, would have to say on this point. In the chapter "The Moloch of Industries," Professor Wadia very properly emphasises the evils of the factory system where women are concerned. Where mothers are forced by necessity to become bread-winners their children are bound to be grossly neglected, a tragic instance of which has just been given by Viscountess Helmsley at an International Conference under the auspices of the National Society of Day Nurseries. Such nurseries cannot answer the purpose of the loving personal care of the mother, but Professor Wadia should admit that they are a real need for mothers who are forced to leave home for the day, and a wholesome and pleasant retreat for their little ones. Prof. Wadia, too, has no mercy for rich women, who undertake public duties and relegate their children to 'hireling' nurses and governesses. Doubtless there are women who do neglect their children for bridge-playing, dancing and other pastimes. But there are public women in England, like Viscountess Astor, Sybil Thorndike and Lady Bonham Carter who are ideal mothers. As regards the parliamentary vote, Professor Wadia says in effect by all means let women have the vote, for that would be exercised only once in a year or two; but seats in Parliament never, for that would mean the neglect of maternal duties.

The chapter "Womanhood in the East" brings out in strong relief the marked difference between the Western and the Eastern position of women. The beginning of the Feminist movement in India may just be discerned. Its development must needs be slow. The inferiority of Indian women is a tradition of centuries and is sanctioned by the authority of religion and law. Education will in time break it down, but at present only a few per cent of Indian women are literate, and many generations must pass before Indian women as a body will be able to assert themselves. The women's movement, too, has an economic basis, and where domestic industries have given place to manufactures, there the economic independence of women has resulted. But in modern industrialism India is far behind the West, and Indian women will have long to wait before achieving their emancipation as a result of economic conditions.

Of the position in India of Hindu or Mahomedan women, Professor Wadia writes with knowledge and sympathy, and those who have no first-hand knowledge of that country will benefit by a perusal of his able summary. The author finds comfort in the fact that motherhood in India "is so far secure, but it has to be made instinct with a high ideal, and how to bear healthy children and how to rear good children." As a Parsee, Professor Wadia speaks with special authority on the status of Parsee women in India. Among the latter, Feminism, European in origin and character, is rampant. But as Parsecs do not number more than 100,000 in the whole world, the Feminism of Parsee women in Bombay is but the smallest fractional exception to the non-Feminism of India. But so far as the Parsee Community itself is concerned, it is a serious matter. Feminism has taken root, and unless its growth is checked, Professor Wadia goes so far as to say that the annihilation of the small Parsee Community is merely a matter of time.

We trust we have succeeded in giving our readers a fairly adequate idea of Professor Wadia's work—The Ethics of Feminism. Though in hearty agreement with his main thesis we differ from some of his points of view and take exception to some of his occasional too-hasty generalisations. But speaking generally his presentation of his case is sane and fair, strikingly arresting and provocative of much thought. He has raised a very serious question, and deals with it with ardour and sincerity and with a full sense of its importance. He has the gift, too, of being able to infuse his readers with his own spirit of championship in a good cause.

T. D.

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Heber's Indian Journal. A Selection with an Introduction by P. R. Krishnaswami. Oxford University Press, 1923.

We welcome this cheap popular selection from one of the important source-books for Indian history in the early 19th century, which has for long been out of print. Heber's observations are valuable, coming from a man of high culture, character and critical spirit. His refreshing candour is in evidence, even to the extent of betraying, here and there, his bigotry and his pet prejudices. "There was something so mild, so amiable and so intelligent about him, that it was impossible not to love him" said Sir Thomas Munro.

The Hindus struck Heber as a 'mild, pleasing, and intelligent race,' as sober, parsimonious, industrious and persevering; but the 'Magistrates and lawyers all agree that in no country are lying and perjury so common.' Indian goldsmiths and weavers 'produce as beautiful fabrics as

our own; and it is so far from true that they are obstinately wedded to their old patterns, that they show an anxiety to imitate our models, and do imitate them very successfully. The ships built by native artists at Bombay are notoriously as good as any which sail from London or Liverpool.' And this, as late as 1825. The bishop was much impressed with the knowledge of what passed in Europe among those 'who could neither speak nor read English' and their intelligent anticipation of the leading events of the Napoleonic wars,—which stands in contrast to the literate ignorance of the present day. He bears, like Malcolm and Elphinstone, eloquent testimony to the efficiency of the *panchayet* system: 'The delay (in meting out justice) is apparently less than occurs under the Adawlat in our old provinces, while the reputation of the court, so far as integrity goes, is far better than that of the others. Eventually, too, these institutions, thus preserved and strengthened, may be of the greatest possible advantage to the country by increasing public spirit, creating public opinion, and paving the way to the obtainment and profitable use of further political privileges.' He is a great believer in the benefits of permanent settlement, and in the saving virtue of governmental non-interference with the non-violent political actions and feelings of the masses. He describes the 'sitting Dhurna' at Benares on the occasion of the impost of a novel and unpopular house tax. 'Above three hundred thousand persons . . . deserted their houses, shut up their shops, suspended the labour of their farms, forbore to light fires, . . . many of them even to eat.' The Government were perplexed, but did not suppress their assemblage, and merely watched their movements from a distance. As their zeal melted away, the supreme government 'followed up their success most wisely by a repeal of the obnoxious tax.' The bishop has critical notes on the personages of the time, among others being Col. Todd, the historian of the Rajasthan, who had to resign because of his 'favouring the native princes too much.' Elphinstone, the historian of India, the man of encyclopaedic knowledge and universal popularity, who nevertheless was against embarrassing the Government by giving liberty to the Press, and lastly the notorious Begum Sumroo, wife of the German Summers, 'a sad tyraness' 'who calls herself a Christian' and has 'a Roman Catholic priest as her Chaplain.' He notes 'an obvious and increasing disposition to imitate the English in everything' especially among well-to-do Indians. His descriptions of natural scenery abound in purple patches.

The bishop is at his worst in regard to Indian literature, customs and religions. His knowledge of the Rama story is despicable and he thinks of Krishna even as do the vulgar herd. It was when Sita was stolen away that Rama and Lakshmana were to go to the jungle! Sita is spoken of as 'ravished' by 'ten or twelve-armed' Ravana and hav-

ing finally her 'release, purification and re-marriage'! In identifying Rama with Bacchus the great bishop only erred in company with antique Europeans like Megasthenes. He considers the Jains 'a sect of the Buddhists,' and describes the Benares temple of 'Unna Purna' and ghat of 'Ali Bhace,' and the Hindu 'Padalon,' and pilgrimage to 'Bhadrinath.' Editorial corrections of such mistakes are conspicuous by absence. But the worst instance is the derivation of the word 'Benares' from the rivers 'Bara' and 'Nasi'!

S. V. V.

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A Survey of Indian History, 1757-1858. By K. H. Kamdar. Baroda, 1922.

A good working account of the period, where 'more attention is paid to political and constitutional characterisation than to the narration of mere facts.' It would make a suitable text-book for the period, if maps and charts be added in a future edition, and the printing and get-up considerably improved. There are few mistakes of fact and the comments on events are in general sound. But there are numerous mistakes in spelling, especially of the proper names, e.g., Sherigham (Srirangam), Raja (Raza) Saheb, Panniani (Ponnani), Puraniya (Purnaiya). None of these is found in the list of corrections.

S. V. V.

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Speeches and Documents on Indian Policy. Edited by Prof. A. B. Keith. 2 vols. (Oxford University Press, 1922.)

We have great pleasure in introducing these beautiful booklets of the 'World's Classics' to the private library of every educated Indian. The selections are well made, the first volume dealing with the period up to 1858, and the second with the later period. The greater part of the second volume is devoted to the period 1914-21, when we had the dawn of Responsible Government in the wake of the war. Professor Keith contributes a clear and succinct account of the subject in a well-written preface. He agrees with Sir Thomas Munro's view, expressed as early as 1824, that India cannot attain full self-government until the Indian army is prepared, without British aid, to maintain internal order and repel the attacks of frontier tribes. 'The creation of such a force must inevitably occupy a considerable period and involve close and cordial co-operation between the British and Indian governments and peoples'.

S. V. V.

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Stabilisation, An Economic Policy for Producers and Consumers.

By E. M. H. Lloyd, London : George Allen and Unwin, Ltd.

THE war has been a practical teacher of economics. It has been the melting pot wherein the time-worn orthodox economic doctrines have been put to the test and tried in practical fields. The economic problems created by the war and the methods tried during its continuance to control the economic forces in such a manner as to ensure the carrying on of the war as well as to maintain the standard of life of the civilian population have set men thinking about new experiments which will prevent the instability of prices and production—the evils ever present in the modern competitive system.

The war afforded an opportunity for systematic centralised supervision and collective organization which modified the old individualistic and competitive system. The wastefulness and the evils of competition have been felt for a long time. Trusts and co-operative organizations are movements which have been set afoot to combat them.

This book on 'stabilisation,' after giving a sketch of currency re-organisation based on the plan approved at the Genoa Conference for stabilising the general level of prices by international co-operation between the central banks, proceeds to extend the same principle of stabilisation to particular commodities such as coal, oil, wheat, cotton, rubber and other staple raw materials and food-stuffs. The author shows the close connection between fluctuation of prices and the mal-adjustment of production to consumption. He bases his optimism about the success of his plan on the methods successfully carried out during the war.

The author points out that the volume of purchasing power during the war was not limited by any such consideration as the amount of gold held by the banks in England or the United States. Purchasing power did not lag behind production. And again what was more important was that the distribution of purchasing power was made to correspond with real social needs—in other words, production and consumption were deliberately adjusted in such a way as to promote the general interest of the community. National organisations were created for the purpose of guaranteeing the supply and controlling the prices and distribution of the necessities of life for the whole community ; and with this view arrangements were made with other governments for centralising the purchase and distribution of food-stuffs and raw materials on a world wide scale. The ascertained requirements of each country were purchased on their behalf by international bodies, and producing countries throughout the world were guaranteed an assured market for their exportable surplus. It is pointed out that the present economic troubles

are international in origin, and hence by far the most important field of economic reconstruction and scientific reform lies outside national boundaries. International regulation of currency, international control of food-stuffs and raw materials, and international understandings as to prices, markets and output are the foundations, the author points out, on which the future world-order can be based. The author is not unaware of the practical difficulties in the way of achieving this ideal and the tremendous opposition of sentiment.

The remedy for instability of prices rests primarily with the central banks. They should restrict credit before their cash resources are depleted, guided by the general state of trade and the index number of prices ; they should consciously aim at so regulating credit as to keep the level of prices steady. The essential feature of the technique of stabilisation is the use of the discount rate as a means of regulating the volume of money in circulation. As before the war, changes in the London bank-rate will virtually determine monetary conditions in all the principal countries ; but the bank-rate will be raised and lowered not, as before the war, to regulate the flow of gold, but to maintain the general level of prices as nearly stable as possible. That is, the bank-rate will be lowered when prices show a tendency to fall, and raised when they tend to rise. The essential feature of the scheme is that the central banks of the world, linked up with common centres in London and elsewhere, will endeavour to regulate the volume of circulating credit and currency, not with reference to any fixed amount of one commodity such as gold, but by reference to the total volume of all commodities bought and sold, as indicated by the general level of prices, statistics of trade and production, and general economic conditions. The author suggests the adoption of a European monetary convention and the most important feature of the convention will be a provision whereby the central banks would agree to co-operate with one another and even to form a sort of European consortium, which would mobilise the gold reserves in the vaults of the various banks of issue and would form a single pool of gold, which would be deposited in a few centres, where a free gold market would be established. The final stage in stabilising the value of gold depends on establishing a satisfactory understanding between this European consortium and the Federal Reserve Board of the United States. But a necessary preliminary of currency stabilisation is a political settlement which does not require the maintenance of large standing armies to enforce execution .

With regard to the adjustment of production to consumption, the author suggests the extension of the same principle of stabilisation as with currency. By centralised purchase, guaranteed prices, and long

term contracts, production could be so regulated as to ensure the supply required. The prices of a fairly wide range of staple commodities should be regulated by a similar method of international co-operation and control in the interests of producers and consumers alike. International combines, trusts and co-operative societies are moving in the same direction of centralisation and large scale operation and it must be, therefore, easy for the Government to intervene and bring about a statutory monopoly with proper safeguards for the interests of consuming countries.

The book constitutes simple and pleasant reading. The current monetary and industrial problems are clearly explained and brought home to the minds of readers.

U. A.

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Lectures on Indian Railway Economics. Parts I and II. By Mr. S. C. Ghose. Calcutta University.

RAILWAY Economics has not been receiving in the Indian Universities the attention that the subject deserves. The Calcutta University however has been fortunate in having secured Mr. Ghose to deliver courses of lectures on Railway Economics. The lectures disclose the wealth of knowledge possessed by the author on Indian Railway problems. The railways of India being in the main the property of the State deserve the attention of the public, since their economical and successful working involves the prosperity of the State finances. Mr. Ghose's lectures on Indian Railway Economics have been published by the Calcutta University in two parts, the first part consisting of 10 lectures and the second of 11.

The lecturer points out that the financial responsibility in the matter of the railways is that of the Government of India and that the risk undergone by the Companies who work the State Railways is insignificant, since their share of the surplus profits combined with the guaranteed dividend of 3 or $3\frac{1}{2}$ per cent comes to as much as 6 per cent. The lecturer deplores the absence of the accumulation of Reserve Funds on Indian Railways which may be devoted to the rapid development of Indian Railways. It must however be noted that till 1900 the railways were working at a loss to the State and after 1900, though the railways were bringing a net profit to the State, Indian public opinion was not keen on pushing forward railway development. For the last one decade, however, there has been a general feeling in favour of rapid railway development.

The lecturer refers to the prevalent Indian view that the railway administration has not done much towards helping forward the industrial

development of the country by the manipulation of the rates. He instances the case of the oil-seeds being lightly charged and oil being heavily charged, and suggests the levy of light rates on oil with a view to develop an export trade in it. The policy, however, of lightly charging oil will have the desired effect only if the Indian Government firmly negotiates with the powerful countries that levy heavy duties on imports of oil and creates facilities for the export of oil from India. The lecturer refers to the increasing proportion of working expenses to the gross earnings from Railways. Capital hereafter will not be forthcoming for railway development, unless high rates of interest are guaranteed. This along with the increasing proportion of working expenses is likely to retard railway development with which is bound up the economic progress of the country. The Government has tried to meet the situation by increasing the tariff of passenger fares and goods rates. It remains to be seen whether the traffic will bear these increased charges. The author would have done well to have laid greater emphasis on the necessity the Government of India is under to bring the railway administration quite up-to-date and economical. Though it might be said that the railway fares in India are lower than anywhere else in the civilised world it has also to be taken into account that nowhere else is the general population so poor as in India.

The second part deals with the practical details of the working of railways, and though of very great value to the railway employees in the higher grades, is of less general interest. The qualifications of Mr. Ghose for the work he has done are very high and he has done a very useful service in placing within the reach of Indian students and publicists such valuable lectures.

T. K. D. I.

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Indian Shipping Series. Pamphlets by S. N. Haji, B.A. (Oxon.), Barrister-at-Law (Bombay).

1. *State Aid to National Shipping.* 2. *The Deferred Rebate System.* 3. *Indian Mercantile Marine.*

THESE pamphlets have been of great service by prominently bringing before the country the very unsatisfactory condition of the Indian merchant marine. Mr. Haji points out how in all the progressive countries of the world the State far from being indifferent has adopted various devices to stimulate the growth of a national mercantile marine. He contrasts the noble role that Indian shipping played in the distant past of India with its miserable position at the present day. At present only 2 per cent of the ships engaged in the foreign trade of India are on the

Indian register and 90 per cent of the coastal trade is done by foreign shipping companies. A big country like India with a foreign trade amounting to about 600 crores of rupees and a rich coastal trade should be so far backward in the matter of an Indian mercantile marine is very deplorable.

The rising national spirit that calls for protective tariffs with a view to establish industries in the country demands as well an Indian mercantile marine. The argument that foreign shipping is likely to render cheaper service than indigenous shipping is met by Mr. Haji, when he points out that the capital employed in the coastal trade earns 30 per cent profit. Besides there are certain things in which a nation as far as possible should not depend on outside agency and the provision of a mercantile marine is a case in point. It is in times of war that the absence of a national marine is most keenly felt. The countries that were strong in that arm besides doing invaluable work by way of transporting essential commodities earned large sums as freight charges. India presented a sorry spectacle in this matter during the recent war.

Apart from this argument there is much to be said, as Mr. Haji, brings out, in favour of the training that is acquired by responsible work on merchant vessels. As it is, young men receiving education in India are a drug in the market without legitimate openings of the sort that are found in every country.

It may be asked why Indians have not developed a mercantile marine while much capital has found its way into cotton mills and various other enterprises. The deferred rebate system has been considered to be the main reason why this unfortunate state of things persists. It is the system by which the shipping companies maintain their monopolistic position and an effective obstacle is placed in the way of the promotion of new companies. Mr. Haji explains how the advantages claimed for the system are illusory and has summarised the laws passed by the various countries of the West relating to shipping rings and deferred rebates.

Mr. T. V. Seshagiri Aiyar has brought a bill into the Indian Legislative Assembly for the abolition of the deferred rebate system in the costal traffic of India. Mr. Haji is to be congratulated on the persistence with which he has urged on the attention of the Indian public the importance of an Indian mercantile marine.

T. K. D. I.

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Annals of the Bhandarkar Institute, Vol. IV, Part 2, Poona City.

THIS is a record of the transactions of the only Institute that has so

far been established in India for carrying on oriental research in a systematic manner. The journal was first issued in 1919 and has ever since appeared twice a year giving proof of the excellence of the work done under the auspices of the Institute. The present number opens with an article on the *Bhakti-Sutras* of Narada. By a careful and detailed examination of the *sutras*, the writer, who is the Curator of the Institute Library, comes to the conclusion that the work has for its basis the *Bhagavadgita*. It does not however merely reiterate the teaching of the *Gita*, but shows new and important phases of development in the doctrine of *bhakti*. Another article by the well-known scholar, K. B. Pathak, discusses the authorship of the *Unadi-Sutras* and brings forward by the way fresh evidence in support of the now generally admitted view that Yaska was anterior to Panini. The most important contribution is that by N. B. Utgikar, describing the progress made in the work of *critically* editing the *Maha-Bharata* which the Institute undertook soon after it was founded. Readers will be glad to learn that the tentative edition of one of the *Parvas*—the *Virata-Parva*—is ready and is about to issue from the Press. Previous to 1914, scholars in the West had planned a similar edition of this work; but the arrangements for carrying out the plan which had made considerable advance had suddenly to be stopped owing to the war that broke out in that year. It is now some years since the war ceased; but there is as yet little hope of the undertaking being resumed. The news is therefore most welcome that negotiations are taking place for combining the efforts of Indian and Western scholars for bringing out a single edition of the work. Should the negotiations succeed, as there is every hope they will, students of oriental research will have before them this great book in a form whose value cannot be exaggerated. The number contains an obituary notice, with a portrait, of P. D. Gune, M.A. (Bombay), Ph.D. (Leipzig), who was one of the founders of the Institute and whose premature death last November is a great loss to Sanskrit scholarship.

M. H.

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Principles of Political Science. By R. N. Gilchrist, M.A. Longmans, Green & Co., Bombay. Rs. 10-8-0.

PROFESSOR Gilchrist of Krishnagar College is to be congratulated on the timely production of a much needed text-book on political science. Though our libraries are being enriched every day by the addition of a number of volumes on this important branch of social science, it is a perplexing problem to many to select a suitable book in which politics has been treated comprehensively and which can meet the requirements

of our students, who are appearing for the degree examinations of various Universities of this country. Mr. Gilchrist's "Principles of Political Science" serves as a very useful guide in the study of politics in all its different aspects: historical, comparative and deductive. The author by his wide range of study and thorough grasp of politics has been able to arrange in a short compass its subject matter which otherwise would be found scattered in several bulky volumes. The topics are presented in the order of accepted orthodox school, and an historical setting is given to every one of them. The reader will find to his great relief that some of the intricate problems of political science such as liberty, equality, sovereignty and proportional representation, have been tackled successfully and made intelligible to him. As it is the intention of the author to have in this book "an impersonal representation of accepted political theories" no attempt has been made by him to give long quotations or extracts taken from other writers. The book is written in a simple and clear style free from all kinds of involved complications with which the readers of some treatises on political science are familiar. Lastly the book is brought up-to-date (1920) and it contains illuminating chapters on *citizenship* and the working constitutions of the progressive countries of the West and the leading States of the East—Japan and India in particular. While venturing to recommend this handy volume to every student of politics and to every citizen of this country we wish the professor every success in his undertaking and hope to have from his pen a few more works on analogous subjects on the same model.

H. K. R.

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Shakespeare's Richard II. Edited with Introduction and Notes by J. C. Rollo, M.A. Madras. Srinivasa Varadachari & Co.

THIS Edition of *Richard II* with Introduction and Notes by Prof. J. C. Rollo, M.A., will find a fit place along with the other well-known editions of Shakespeare's plays. Prof. Rollo has won a reputation in Southern India as a Shakespeare scholar and has before this been accepted as an authority. Hence this publication of this play will carry weight. The notes are appropriate and to the point. The Introduction is all that is necessary to interest, and will add to the knowledge of, the student. Full information which must be gleaned from many commentators is condensed and simplified to a very helpful degree. The main characters in the play are sketched for us with such sympathy and understanding that we feel them to be very human and of full interest. It is all that a text-book should be and is an edition that will prove of much use both to the teacher and to the taught.

H. S. H.

THE MYSORE UNIVERSITY MAGAZINE

Iran Schahr. Published and Edited by H. Kazem Zedeh (in Persian).
Martin Luther Strasse, Berlin, W. 30.

It heralds the Persian Renaissance in art and literature and echoes liberal and national sentiments in politics.

The subjects it generally deals with are literary and educative. It sheds a clear light on many a dark part of old Persian, literary history of Persian language and literature and many a matter of importance and interest, which have been long buried in oblivion. The editor is extremely well equipped to write such a work since he is a profound scholar of Persian and has an intimate knowledge of common life and manners of the Persians; besides he is well-versed in Arabic, Turkish and German languages. He is not only a distinguished scholar, but also an accomplished writer. Even a few numbers of the magazine have taught us to expect from its editor and other contributors articles, wherein the results of careful scholarship are presented in the best form possible.

The editor aims at giving a comprehensive survey of Persian culture in almost all its aspects and a careful observation of life and society in Persia. His writings approach nearly absolute perfection, nor is their excellence more wonderful than their variety. The style is pure, natural, correct and lucid, simple and elegant for all the ends of plain narrative; it can rise when necessary to a fine glow or thrill us with a splendid verve. The language is grand and sublime in its simplicity.

The "*Iran Schahr*" is a well printed monthly magazine with a fine front-piece in colour.

I as a Persian, and also as a Persian Professor in an Indian University, wish that this little magazine will be welcomed with enthusiasm by all Persian readers.

A. M. S.

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Reform of the Hindu Muttis with particular reference to the Jagadguru Mutt of Sringeri. By D. V. Gundappa. "Tracts for the Times," No. 1.

NOTHING can be more significant of the times we live in than this little booklet, which ushers in the "Tracts for the Times." A few years ago the very idea of reforming a mutt would have been considered audacious, and the idea of discussing the question in public would have been an act of sacrilege. But times have changed, and now we have Mr. Gundappa making a bid for a thorough reform of the Sringeri Mutt. After a brief, but an illuminating, survey of the history of the

mutt, the author proceeds to expound how the mission of the mutt ought to be conceived. He wants it to be a living centre of religious life, not "an asylum for recluses" turned away "from the world in cynical contempt" and having "nothing to do with its life and struggles." To realise this admirable idea the author wants the Sringeri Swami to preach the gospel of his master and rejuvenate the decadent religion of his followers. On pages 19 and 20 the author summarises the seven problems before the mutts. Each of them is full of suggestive thought, and we admire his courage when he calls upon the mutts to cancel the untouchability of the Panchamas and to better "the lot of young and childless widows." Indeed it will be a great day, when the mutts will develop an enlightened policy instead of being mere conservative forces seeking to dam the religious aspirations of even the humblest people.

The author is on most debatable ground, when he sketches a scheme of reform. He repudiates any "talk of democratic control" in the realm of the Guru, and yet his whole scheme breathes too much of ideas rendered familiar to us in the sphere of politics. The author's scheme virtually amounts to depriving the Jagadguru of his present importance and making him a tool in the hands of "a governing council." As if this were not enough he would have the general body of the *sishyas* of the mutt being given the privilege of making recommendations to the Jagadguru. So we are to have a sort of Representative Assembly in "the realm of the Guru." The suggestion has some merits, but it is wholly revolutionary and totally inconsistent with the history and the very idea of the mutts. The author, while admitting the need of maintaining the mutts, does not recognise the importance of having one Jagadguru, adult and able, who could inspire his followers to a good and noble life. A council means divided counsel, and even ultimately perhaps factions. It would be a fatal mistake to reduce the Jagadguru to the level of a crowned king who reigns but does not rule. In the realm of spirit one pure and lofty spirit is worth more than a hundred mediocrities constituted into a governing council.

Whether one agrees or not with the author, the booklet is most stimulating and its importance is much greater than its size. It at least serves to draw public attention to a state of affairs, which has given birth to most ugly rumours about the management of the Sringeri Mutt. In any civilised society it is a most dangerous practice to have one or two persons swaying power in a way which is apt to deaden the independence of the Jagadguru himself. And the public is certainly interested to see that the vast estates of the mutt, which are the result of people's devotion to the great Sankaracharya's successors, are managed to the benefit of the community, and that mere personal interests of a few do

not sully the reputation of the mutt and thereby hamper the flow of religious life. Perhaps Mr. Gundappa's suggestions will lead to some definite organisation for the management of the mutt properties, so long as the independence and the absolute authority of the Jagadguru are left intact, for a single religious soul is a greater spiritual power than a council can ever hope to be. We trust that the affairs of the mutt will soon be settled so as to reflect glory on the *gadi* that was occupied by Sri Sankaracharya, Vidyaranya and Sri Narasimha Bharati Swami of revered memory.

A. R. W.

COLLEGE NOTES.

Maharaja's College.

THE UNIVERSITY UNION, MYSORE—The Union may well be proud of its activities during the year 1922-23, as the appended list conclusively shows. Eight debates were held and they maintained a fairly high level. We may particularly note the Staff Debate on 14th October 1922, when Prof. Rollo in his usual fine style cudgelled philosophy, and Mr. Govinadraju spiritcdly defended it ; the chair was worthily occupied by a student of the M.A. class, Mr. J. B. Mallaradhy. Two new departures were also made. One was the Freshmen's Debate on 2nd September 1922, when some new budding orators were discovered. The other was an Inter-collegiate Debate with the representatives of the Central College. The visitors greatly distinguished themselves, and the mover Mr. Varadarajan of Central College had the unique distinction of making the arts students vote in favour of science. In return the Central College invited four representatives of our Union to take part in a debate at Bangalore. This event took place in January. Our representatives were treated sumptuously, and the chief of them, Mr. J. B. Mallaradhy, by his brilliant speech splendidly upheld the reputation of our Union. We hope that these inter-collegiate debates will never cease to be an annual feature of our University life.

Six lectures were given by gentlemen of distinguished learning. Prof. Venkatesachar's address on "Einstein's Theory of Relativity" deserves a particular mention, as it was the first time in recent years that the Mysore students had the privilege of listening to a professor from Bangalore. Unfortunately there is too much isolation, both social and intellectual, among the constituent colleges of the University. It is to be hoped that Prof. Venkatesachar's example will lead to break down these barriers of isolation.

Another new feature was the starting of reading-circles. They were meant to serve as a stimulus whereby students may form small groups and discuss various problems. The discussion was very stimulating and Prof. Srikantia and Prof. Venkateswara Ayyar cannot be thanked enough for their hearty sympathy with, and co-operation in, this new movement.

On 10th August 1922, the new Managing Committee was At Home to the retiring President—Prof. Rollo—and the retiring Managing Committee. It was a very successful function and a fitting tribute to Prof. Rollo for his abiding interest in the Union. His co-operation was a

tower of strength to the Managing Committee during the year under review.

On 3rd March 1923 the Union Day Social proved to be a success even beyond the expectations of the organisers. The principal feature of it was a short dramatic skit on the doings of a village *shanbhog*. It was written by a student of the College, Mr. N. S. Narayan Sastri, who also played the leading role and greatly distinguished himself. The audience was convulsed with laughter, a most fitting ending to a year of successful work.

The President would like to take this opportunity to thank all whose co-operation alone made the Union activities so successful. He received nothing but most willing and ungrudging help from his colleagues: the Principal and the staff of the Maharaja's College. Among student members Mr. K. Ramiah worked most and deserves to be specially thanked. The Union has yet to be developed further, and the President trusts that the last year's good work will be continued still further, and he can hope to see this only with the continued sympathy and encouragement of the members of the staff and the student members generally.

A list of meetings held during 1922-23 is appended below:—

DEBATES.

- (1) 19-8-22. "That Liberty is a higher ideal than Equality." (*Chairman*: Prof. A. R. Wadia.)
- (2) 2-9-22. "That loyalty to books is the greatest hindrance to progress." (*Chairman*: Prof. B. M. Srikantia.)
- (3) 5-9-22. "The last debate was continued." (*Chairman*: Prof. B. M. Srikantia.)
- (4) 16-4-22. "That Science has not added an iota of happiness to the life of man." (*Chairman*: Mr. S. V. Krishnaswamy Iyengar.)
- (5) 14-10-22. "That Philosophy is essentially a vain thing." Moved by Mr. J. C. Rollo and opposed by Mr. Govindarajulu. (*Chairman*: Mr. J. B. Mallaradhy.)
- (6) 4-11-22. The Inter-Collegiate Debate.—"That in the opinion of this House Scientific Education is more worthy of encouragement than Literary Education." Moved by Mr. Varadarajan of Central College. (*Chairman*: Prof. A. R. Wadia.)
- (7) 18-11-22. "The higher standard of life among the students of Mysore is not desirable." (*Chairman*: Principal N. S. Subba Rao.)
- (8) 2-12-22. "That this House views with regret the contemplated abolition of the Commerce Faculty." (*Chairman*: Prof. J. C. Rollo.)

LECTURES.

- (1) 29-7-22. "Some aspects of the Oxford and Cambridge Union Life," by Prof. A. R. Wadia.
- (2) 12-9-22. "Co-operation," by Mr. K. H. Ramayya, Officiating Registrar of Co-operative Societies. (*Chairman*: the President.)
- (3) 26-11-22. "Einstein's Theory of Relativity," by Prof. Venkatesa-char, (Central College). (*Chairman*: the President.)
- (4) 20-1-23. "House of Commons," by Prof. A. B. Mackintosh. (*Chairman*: the President.)
- (5) 27-1-23. "The Function of Fine Arts in Social Evolution," by Prof. S. V. Venkateswara Ayyar. (*Chairman*: the President.)
- (6) 3-2-23. "Shelley as a Religious Poet," by Prof. A. R. Wadia, (*Chairman*: Prof. B. M. Srikantia.)

LITERARY MEETINGS.

- (1) 30-8-22. Paper by Mr. N. Madhava Rao, III B.A. on "The Poetry and Science of Stars." (*Chairman*: Mr. S. V. Krishnaswamy Iyengar.)
- (2) 11-11-22. Paper by Mr. M. Raja Rao, III B. A. on "The Interpretation of Dreams." (*Chairman*: Mr. S. V. Krishnaswamy Iyengar.)
- (3) 9-12-22. Paper by Mr. K. Ramiah on "Toru Dutt." (*Chairman*: Prof. B. M. Srikantia.)

GENERAL MEETINGS.

- (1) 17-7-22. To elect the Vice-President, the Student Secretary and two members for the Managing Committee of 1922-23. (*Chairman*: the President.)
- (2) 28-11-22. To consider the resolutions of the Students' Welfare Committee. (*Chairman*: the President.)
- (3) 14-12-22. To elect four representatives for the Inter-Collegiate Debate at Bangalore. (*Chairman*: the President.)

ELOCUTION COMPETITION.

- (1) 9-9-22. Prose and Poetry.
- (2) 17-9-22. Impromptu Speech Competition.

READING CIRCLES.

- (1) 28-10-22. "Emerson's Essay on the Poet." Conducted by the President and Prof. B. M. Srikantiah.
- (2) 6-1-23. "Carlyle's Hero and Hero Worship." Conducted by the President and Prof. S. V. Venkateswara Ayyar.

SOCIALS.

(1) 10-8-22. An At Home to Prof. J. C. Rollo, and the retiring Managing Committee.
 (2) 3-3-23. The Union Day Social.

* * * * *

THE MYSORE UNIVERSITY UNION CO-OPERATIVE SOCIETY, LTD., MYSORE. ANNUAL REPORT.—The fifth Annual Report of the working of the Mysore University Union Co-operative Society, Ltd., Mysore, was presented by the Joint Honorary Secretaries, to the share-holders. A few extracts from it are given below :—

“ It is our privilege to place before you this brief report of the working of the Society for the year under review, 1922, along with the Profit and Loss Accounts and the Balance Sheet duly audited and certified.

Share Capital and Membership.

The year commenced with 632 shares of rupee one each (fully paid up) to which an addition of 124 was made as against 139 of last year, making a total of 756. As against this there were 84 withdrawals from the students who left the College after finishing their course, leaving a total balance of 672 shares. Thus we have been able to secure 67 per cent of the authorised capital. Due to the shyness of the new students there was slackness in getting the authorised capital fully subscribed, and had there been greater co-operation on the part of the student members of the Managing Committee, it would not have been impossible to have had more members and to have had the authorised capital fully subscribed.

Gentlemen, it is a matter of great pleasure to bring to your notice that we have our learned Vice-Chancellor, Dr. Brajendranath Seal, M.A., Ph.D., as one of the members taking the maximum number of shares allowed.

Revenue and Expenditure.

When we were entrusted with the work of the Society, there was an opening stock worth Rs. 860-2-3. During the year our total purchases extended to Rs. 2,675-1-9, and the sales came to Rs. 2,616-4-2, excluding the commission sales. We had in hand on 31st December 1922 a closing stock worth Rs. 1,125-5-8, valued at cost price, plus a proportionate trading charge incurred during the year. This heavy stock on hand is due to the fact that some of the text-books, which were expected to be taken up in several classes this year, were not taken up. We are trying with some firms in Madras to dispose of some of the unnecessary stock.

We may briefly mention our new business, namely, the Academic Robes and Hoods. The total expenditure on this item was Rs. 538-8-3. By hiring them out we realised a net income of Rs. 171-0-0.

The transactions of the year yielded a gross profit of Rs. 206-5-10. Adding the income derived from gowns and hoods, commission, etc., the total amount reached Rs. 390-14-4.

The trade expenses for the year amounted to Rs. 97-10-0. The cash discount allowed to the members on their purchases came to Rs. 13-10-9. The depreciation on gowns and hoods and on furniture and loose tools has come to Rs. 72-6-4. Towards the preliminary expenses incurred last year, Rs. 25-9-1 is proportioned. After debiting all these items we have been able to make a net profit of Rs. 151-10-2.

Dividend and Rebates.

We are glad to tell you that your Directors recommend a dividend of Rs. 6½ per cent on each share and a rebate of 6 pies per rupee on the purchases made by the members from January to 31st July. According to a resolution of the Managing Committee held on 24th August 1922, we are giving from August a cash discount of 6 pies on every rupee' worth of purchase.

Management.

Gentlemen, we beg to offer our most heartfelt and sincere thanks to Professor A. R. Wadia, B.A., Bar.-at-Law, the President of the Society, and Mr. S. V. Krishnaswamy Iyengar, M.A., B.L., Vice-President, for the personal interest they have taken in guiding us and for the continued encouragement and practical help they have given us.

We are indebted to our beloved Principal and Mr. H. V. Srikantia, B.A., B.Com., LL.B., for their sympathy and hearty co-operation. We also offer our thanks to the members of the Special Committee for their valuable suggestions."

"At Home."

The members of the new Managing Committee were At Home to the retiring President, Vice-President, Secretary, Treasurer and other Members of the Committee on Wednesday the 14th March at 5 P.M. in the Union. The programme included a group photo, refreshments and toasts. The arrangements were extremely good. It was a pleasant social evening and every one enjoyed the function as heartily as he could. Mr. Natarajan and Professor Rollo spoke in fitting terms of the work of Professor Wadia and Mr. Krishnaswami Iyengar, with particular reference to securing hoods and gowns. Professor Wadia in reply said that he deserved no thanks, as he had done nothing particular and conceded all credit to the Secretaries and the Treasurer for the successful working of the Society.

The Annual General Meeting.

The Annual General Meeting of the shareholders of the Society was held on 8th February at 4-30 P.M. in the Union Debate Hall, when Professor A. R. Wadia, B.A., Bar.-at-Law, the President of the Society was in the chair.

The new Managing Committee is constituted as follows :—

<i>President</i>	.. Professor J. C. Rollo, M.A.
<i>Vice-President</i>	.. Mr. H. V. Srikantiya, B.A., B.COM.
<i>Student Vice-President</i>	.. „ A. Laksminarayan Rao, (II B.A.)
<i>Hon. Secretary</i>	.. „ S. Venkateshiya (II B.A.)
<i>Joint Secretary</i>	.. „ William D. Pichamuthu (I B.A.)
<i>Treasurer</i>	.. „ K. Narasimha Iyengar (II B.A.)
<i>Committee Members</i>	.. „ S. V. Venkateswara Ayyar, M.A., L.T. „ Rev. Father J. B. Argaut. „ N. Narasimha Murthy, M.A., B.L. „ H. Krishna Rao, M.A. „ B. Jeevanna Rao. „ Y. S. Narsimhiya. .. „ B. V. Sheshagiri Rao. „ G. R. Seetharamiengar.
<i>Auditors</i>	

After a hearty vote of thanks to the retiring President, the Vice-President and the other members of the retiring Managing Committee the meeting terminated.

K. NATARAJAN.

S. VENKATESHIYA.

Hon. Secretaries.

* * * *

Engineering College.

THE most outstanding feature of news in this half of the year is the Annual Examinations. Even two months ahead of the examination, the student world will have forsaken the field for the book, and, the tennis court, the foot-ball ground and the cricket pitch will wear a deserted appearance. Thinking of examinations, I am almost tempted to ask the "powers that control," if, the heaping up in one single University Examination, subjects taught over a period of two years, could not be at least partially avoided by disposing of the comparatively unimportant subjects by way of the 1st year and 3rd College Annual Examinations? In many of the American Universities, for instance, it is the practice to make intensive study of particular subjects and dispose them of by holding an examination as soon as the subject is completed by the Professor. In my humble opinion, the pressure on the student world

by some such system would be materially reduced and what is more, the student will have a clearer grasp of the subject. By our present system, the student's head, pulled in several directions at the same time, has everything thrown in it pell-mell and may be said to resemble closely an "Old Curiosity Shop."

Another most important item to record is our Annual College Day, which came off in the latter half of March. 'The Old Boys' especially are to be congratulated, in this connection, on the sporting way they came forward with their munificent contributions, and much of the credit of the success of the College Day is, in my opinion, due to their co-operation. Mr. S. G. Forbes, Chief Electrical Engineer, presided on the occasion and placed the student population under a deep debt of gratitude by his illuminating and sincere advice.

Another most important event to record is the promotion of our Ex-Principal Mr. K. R. Seshachar, B.A., B.E., to the place of the Chief Engineer for Roads and Buildings. It was really in the fitness of things that this should happen and many of us thought that this was long overdue. He had had a long and bright record of service in the P.W.D. and reinforced as his experience now is by more detailed theoretical knowledge, his services will surely be very much more beneficial to the State. Mr. S. A. Ramaswami Iyer, B.E., who has replaced him, has a brilliant record of executive service behind him and is the senior-most Executive Engineer in the P. W. Department.

About sports activity in the College, the tennis courts were quite full and though the same amount of interest was not evinced by the students towards other sports, they were also fairly busy. More interest and organisation are, however, necessary on the part of the staff and much more so on the part of the students.

K. D. JOSHI.

[We heartily associate ourselves with Mr. Joshi's encomium of Mr. Seshachar's services to the University. His unostentatious devotion to duty and his quiet personality were some of the moral assets of our University. What the University loses in him the P. W. D. gains, and no selfish considerations should prevent us from rejoicing in his advancement. Another loss that the University sustains and particularly the Central College, is the retirement of Mr. B. Venkatanarappa. He is sure to be missed much, but we wish him a long and lettered ease after an arduous and devoted span of service to the cause of education in the State. Few men can hope to rival him in his mastery of the details of our University organisation. For this reason we are particularly glad that the new Senate will continue to have the services of so zealous a senator and also of Mr. Seshachar.—*The Editor.*]

RESULTS OF THE MYSORE UNIVERSITY EXAMINATIONS
HELD IN MARCH 1923.

NAMES OF SUCCESSFUL CANDIDATES OF THE EXAMINATIONS,
1923, IN FIRST CLASS.

M.A., 1923.

HISTORY, ECONOMICS AND POL. C. Sundararama Rao.

SCIENCE.

PHILOSOPHY .. M. A. Venkata Rao.

B.A., 1923.

Part I.

Madhava Rao, Nagavar.

Ramanathaiya, Konanoor Patalbhi Ramiah.

Narayana Rao, Dodderi Rangappa.

Suryanarayana Rao, N. S.

Shama Rao, Belur Narasimhaiah Venkatasubbiah, Nittur.

Part II.

Madhava Rao, Nagavar.

B.Com., 1923.

Venkata Rao, Uttarkar.

B.E., 1923.

(*Civil Branch.*)

Venkanna, Devanahalli Subba Rao.

(*Mechanical Branch.*)

Mahomed Hayath.

Ramanujam, HIREMAGALUR Kesavachar.

B. Sc. DEGREE EXAMINATION (OPTIONALS).

Krishnaswamy, P. N. }
Venkatarama Iyer, M. P. }

Subba Ramiah, Budigere.

Sreenivasiengar, Malur L.

Nagendran, R.

SeshaGiri Rau, Sabnivis.

Narasimha Murthy, Nijigal Karigiriachar.

Subba Rao, Kolar.

Mahomed Shafiuddin Mekirri.

Venkataramiah, Hanagud Seetharamiah.

Subbabhatta, K.

INTERMEDIATE EXAMINATION IN ENGINEERING.

Nanjappa, Krishnappa.

MEDALS AND PRIZES 1923.

M.A.

<i>Name of Medal.</i>	<i>Name of Winner.</i>
(1) The Purna Krishna Rao, Medal (English).	Subba Rao, H.
(2) The Purna Krishna Rao, Medal (Sanskrit).	Rangaswamy Iyengar, H. R.
(3) The Bhabha Memorial Gold Medal.	Venkata Rao, M. A.
(4) The First Vice-Chancellor, Mr. H. V. Nanjundayya's Gold Medal.	Sundara Rama Rao, C.
(5) The Navinam Ramanujacharya Medal.	Venkatasubba Sastri, M. R.

B.A.

(6) The Sri Lakshamnia Medal	Amba Bai, C.
(7) The Sir P. N. Krishna Murti Sanskrit Gold Medal.	Narayana Murti, M.
(8) The Sir Seshadri Medal ..	Madhava Rao, N.
(9) The H. Ramanujengar Medal.	Madhava Rao, N.
(10) The Saklespur Shop Sidde Gowda Medal.	Madhava Rao, N.
(11) The Navinam Ramanujacharya Meddal.	Raghavachar, K.
(12) The Weir Memorial Medal	Ramanathaiya, K. P.
(13) The Keni Siddappa Gold Medal.	Narayana Rao, D. R.
(14) The Candy Medal ..	Madava Rao, N.

B.A. SCIENCE.

<i>Name of Medal.</i>	<i>Name of Winner.</i>
(15) The Shree Lakshmi - devamma Gold Medal.	Narasimha Murti, P. N.

B.Sc.

(16) The Navinam Ramanujacharya Medal.	Venkatarama Iyer, M. P.
(17) The H. Ramanujicengar Medal.	Venkatarama Iyer, M. P.
(18) The Hanumappa Gold Medal.	Seshagiri Rao, S.
(19) The Purna Krishna Rao Medal (Physics).	Srinivasa Iyengar, M. L.

B. COM.

(20) Sir Hugh Daly Gold Medal	Venkata Rao, U.
(21) The Sha Ch hum a n m a l Dungaji Medal.	Venkata Rao, U.

PRIZES.

(1) The Annapurnamma Prize..	Ernestine Loenen.
(2) The Tait Memorial Prize ..	Suryanarayana Rao, N. S.
(3) The Waters Memorial Prize	Narasimha Murti, N. K.
(4) The Bhabha Memorial Prize	Subba Rao, H.
(5) The Bhabha English Prize	Suryanarayana Rao, N. S.
(6) The Mysore Government Physical Science Prize (Physics).	Nagendran, R.

We publish in this issue the names of medallists, prize-winners and those who secured a I Class in the various examinations held last March. We offer our hearty congratulations to all of them, especially to Mr. C. Sundararama Rao on securing the First Vice-Chancellor's Gold Medal, the highest distinction open to an M.A. candidate. In the list we also note with pleasure the names of Mr. M. A. Venkata Rao and Mr. N. Madhava Rao, whose compositions were particularly selected by Mr. Rollo as worthy of appearing in the pages of this Magazine. The Central College secures the greatest number of first classes, a distinction on which it is to be most enthusiastically congratulated. The general percentage of passes in all the examinations is very satisfactory. Whether a high percentage of passes at the Entrance Examination is intrinsically commendable involves a question of policy. To judge from the correspondence in the press, it is a widely-held idea that every student that wishes to be admitted to a particular college must be admitted. This is an idea, which has never

been countenanced by the universities in the West, and restricted admissions have been the general rule in most self-respecting colleges with any pretensions to efficiency even in British India. To say—as has been said—that Mysore students are now worse off than in the pre-university days is partly false and partly misleading, since the number of college students is ever so much higher than in the pre-university days. It is indeed an open question whether every one is fit for university education and whether every student that passes the Entrance Examination even by being given grace marks is fit to be admitted to a college. Such a rule will spell the ruin of university education in Mysore. The difficulty is very real, and shows the urgent need of re-organising school education offering other outlets besides the university and reviewing the position of the Entrance Examination. While deeply sympathising with those who have failed to secure seats at the Central College, we yet assert it as an academic principle that it is better that many who are unfit be left out rather than that they be admitted and allowed to hinder the progress of the really fit. Democracy has its limits, and a democracy that befriends the unfit at the expense of the fit is intrinsically suicidal. A university worth the name must be zealous of its efficiency first and foremost and must insist in a certain standard.

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THE MYSORE UNIVERSITY MAGAZINE

SEPTEMBER 1923

EDITORIAL.

A GREAT EDUCATIONIST.—With the passing away of the Rev. Dr. Miller has passed away the most outstanding figure in the history of University Education in South India. The beginning of his remarkable career in India synchronised with the early years of the University of Madras, and till he left Madras more than a decade ago it was his voice that ultimately counted in matters educational. The Christian College was practically his creation, and the hostel system was his most original contribution to the student life of Madras. He spent his wealth with a lavish hand on the Christian College, and built three hostels at his own expense. As if this were not enough, his will discloses the fact that his old college—and that means Indians ultimately—has been further benefited by £20,000 and more. Gifted by fortune with the finest qualities of head and heart a man can possess, and possessing wealth as few educationists can command, he laid all his gifts at the altar of university education with no niggard hand, and he had his reward in the loving place that he found in the hearts of thousands of Indians, who passed through his hands during the long period of half a century. It is a hidden secret how many thousands of his poor Indian students received from him pecuniary assistance, for he was one of those rare spirits, whose left hand knows not what the right hand gives. He was an educationist whose interest in his students transcended the shortness of their mere academic career. Those lucky Mysoreans who sat at his feet will never forget his unfailing courtesy, the warmth of his heart and his deep solicitude for them who had come away from their homes and were bereft of homely comforts. They found in him a loving father, a revered *guru*. The news of his death, even though it occurred in the full ripeness of years, has not failed to

evoke in the large number of his Mysorean pupils a poignant sorrow and reminiscences of their great teacher, a good Christian.

Dr. Miller chose India as the field of his activities in a spirit of pure devotion to the message of his Master and of pure service to India. He was one who came to India not to take, but to give. His life and his ideals alike represented the missionary effort in India at its highest. In these days of a narrow nationalism it has become a fashionable creed to run down missionary institutions. Calmness of temper and impartiality of judgment are not the usual accompaniments of political life, but in the sober shades of a university we can give a meed of praise to those who so richly deserve it, and the work of so selfless a worker as Dr. Miller should sober the diatribes of the most extreme opponent. In the heat of political strife it is apt to be conveniently forgotten that the India of to-day is the product of English education, and the beginnings of this education go back to the efforts of missionaries. Missionary institutions whether schools or colleges, manned by bands of earnest men and women, shouldered the burden of educating the masses at a time, when the Government did not feel the education of the people to have a principal claim on their treasury, and when Indians were too short-sighted to finance and start institutions of their own. The great "inconvenience and disadvantage"—if such terms can be at all used with any justification—of missionary institutions in the view of their opponents has been the compulsory teaching of Bible. It is curious to note that this opposition has come into existence only during the last few years and mainly on the ground that as they receive Government grants they should not make Bible teaching compulsory. To those who recognise the existence of a universal religion embracing all mankind and free from dogmas and myths, this opposition cannot but seem highly artificial, for the Bible teaching during the last hundred years has been a literary and moral inspiration to many Indians without affecting their patriotism or their own religion. In fact, many an Indian has become a better Indian—and a better Hindu as the case may be—through the Bible, while to those who are genuinely against Bible learning it is always open to avoid missionary institutions. Considering the vast sums of money that they have spent on India, and considering the untold good that men like Dr. Miller have conferred on India, it would be ungracious to deny their right to Government help, simply because they insist on teaching what they consider to be a higher religion. A yet further reason might be adduced in favour of the missionary of to-day, *viz.*, that the old type of the bigoted missionary who mulishly refused to see any good in any religion outside his own has practically

ceased to exist. The broad-mindedness of the missionary to-day is a new phase, of which Dr. Miller himself was an outstanding example. He has learnt to be tolerant of other faiths. But above all, he displays to-day an intellectual sympathy with the Indian aspirations, which it would be ungrateful on the part of Indians not to reciprocate.

It is significant of the signs of the times that a non-Christian like Mr. K. Natarajan should have been asked to preside over a missionary conference only a few weeks ago. With his characteristic lucidity, sanity of judgment and frankness of expression he pointed out that proselytism was an essentially out-worn ideal which the missionaries should deliberately give up and adopt instead the ideal of evangelisation, for the truth of religion lies in the purity of heart and not in external rites. Mr. Natarajan himself—like the late Sir N. J. Chandavarkar—has again and again borne evidence to the deep influence exerted on himself by the Bible, and Christ would recognise in him a greater and a truer Christian than many who have accepted his creed through purely economic motives. Love is a priceless gift and is open to all who have a feeling heart. It cannot be made the monopoly of a narrow creed. If Mr. Natarajan's advice is significant of the times, it is still more significant that his advice should have found the eager support of some missionaries themselves, as is evidenced by the letters of sympathy which have appeared in the columns of the *Indian Social Reformer*, a great organ of cosmopolitan evangelisation. If the missionaries can but accept this as their main duty: that they should spread the message of Christ instead of converting people, the one thing that has sown seeds of suspicion in the minds of Indians against missionaries in general will surely disappear. It would be no exaggeration to say that some of the very greatest religious leaders of India during the last one hundred years, Raja Ram Mohan Roy, Dayanand Saraswati and Gandhi have been profoundly affected by the spirit of Christ and this has shown the futility of tethering His spirit within the artificial bounds of this or that Church.

Dr. Miller, though he came out to India nearly sixty years ago, stood for this ideal of evangelisation, and his fine catholic spirit of large-heartedness shown to Indians of all castes and creeds and his Catholic philanthropy were after all greater monuments of his Christianity than any converts he may have casually made, and it is for this universal Christianity that his memory will be kept green by all who fell under the influence of his magnetic personality. This journal as the organ of the Mysore University offers its humble tribute of reverence to the memory of one, who by his pioneer work made this University and the reformed University of Madras possible.

"Men are we and must grieve when even the shade
Of that which once was great is passed away."

* * * * *

THE REFORMED UNIVERSITY OF MADRAS.—By his extreme devotion to the interests of students and his great idea of developing residential college life, Dr. Miller laid the foundations of a new ideal in Madras, which has now borne fruit in the Madras University Act of 1923. The news of this achievement must have gladdened the heart of the veteran educationist in his Scottish home, and doubly so because of the new status conferred on his old college, and because of the great honour conferred on his old colleague, the Rev. Dr. E. M. Macphail, whose appointment as the first Vice-Chancellor under the new Act is the most apt recognition of his worth as a sound educationist and of the position that the Christian College has achieved in the educational world of South India. At one time it seemed as if the Senate of the old regime out of a mistaken zest for the mofussil colleges would succeed in wrecking the new ideal, but the Education Minister by his pertinacity carried the measure through the Legislature, and the new university has become a settled fact long before many of us expected it. Of course it will be some time before the Constituent Colleges and the public alike will settle down to the new state of affairs. But the Act itself rests on a very catholic basis and promises a good future. At present the mofussil colleges are deprived of their equality with the Madras Colleges, but the latter have always enjoyed a superiority in status and prestige, and it would be unreasonable to demand that the progress of Madras should be retarded in the interests of the mofussil colleges. In the long run the latter are bound to benefit as is contemplated by the preamble to the Act, whereby it is definitely stated to be one of the main purposes of the Act that suitable centres outside the limits of the university be prepared for the institution of new universities, and the Act further provides that at the end of every five years an inquiry shall be held as to where new universities can be established. The mofussil colleges instead of chafing under imaginary grievances should strive to attain at an early date a new position for themselves in new universities.

The Madras University deserves to be congratulated on the fact that of the old universities in India it is the first one to be reformed, while Calcutta is still busy discussing the preliminaries of university legislation, and Bombay seems to have just awakened to a recognition that the M.A. teaching should be centralised in the hands of the University. Madras has quietly stolen a march, and in many ways points out the direction in which the old and some of the new universities might alike

progress. One feature of the Madras Act is most striking: its honest desire to see that in all the various bodies of the university the persons actually engaged in educational work find their due representation. This embraces not merely the University Professors and Readers, but even the staffs of the colleges, constituent and affiliated, and also "three persons elected by head masters of secondary schools recognised by the Local Government." Most of the Indian universities suffer egregiously from the want of an Academic Council. Madras is going to have one constituted entirely by professional educationists with the exception of only "five members elected by the Senate from its own body who are not engaged in teaching." In other words, the Academic Council will have the advantage of having lay opinions placed before it without its running the risk of being swamped by vote-catching politicians. The Senate also will contain a very fair representation of educationists, but it is not possible to say at present what exactly will be their strength.

On the whole, the Act is full of promise. As to how far it will realise its aspirations depends on the men who work it and the spirit in which it is worked. That the first Vice-Chancellor is an academic gentleman augurs well, and yet the fact that the university will be financially dependent on the Government is a weakness, however inevitable it be. That they who pay should exercise some control is a simple statement of fact, unchallengeable economically or otherwise. But it is possible for a Government that finances a university, to interfere far too much even with the details of mere academic administration and thereby nullify the best efforts of educationists and damp their enthusiasm and power to achieve good results. In the interests of higher education in South India, it is to be earnestly hoped that the Government will be wise alike in its control and generous in the amount of autonomy it concedes to the university authorities. For a university that cannot be trusted to know its own needs is bereft of half its virtue. It is to be equally hoped that the Government that has so generously made a bid for progress even over the head of the Senate will not have its enthusiasm damped by the varying fortunes of political parties or the shifting exigencies of economic conditions.

For five decades India managed to do with five universities. But recently there has been a definite movement in the direction of new universities, and this movement is bound to receive a strong impetus from the very provisions of the new Madras Act. In some quarters there has been expressed a fear that this movement might be overdone and that instead of having at least tolerably good colleges we might be having inferior universities. There is some force in the fear, but where

there is a disease there is generally also a remedy. Our Indian colleges in the past have suffered from the evils of a mistaken self-sufficiency. It led to a duplication of work and waste of energy. And it may be that our future universities would repeat this error and in course of time become inferior universities. This is an evil which can be checked only by a healthy co-operation on the part of the universities themselves. Let them not shut their doors against one another. Let them specialise in certain branches especially of higher and costlier studies. It is infinitely better to have a first class science laboratory satisfying the needs in the highest research of two or three university areas than that each of these should have a second rate laboratory where the highest research is not possible. Or again, it is hardly worth while for each university to have a Law College. In the beginning at least this sort of co-operation and mutual supplementing will be most desirable and helpful in a poor country like India. If in future changed circumstances usher in a great period of prosperity, there will be time enough to think of new methods and new developments of university ideals. For the present it is sufficient to organise the university education in the interests of those alone who are really fit to benefit from it, and to organise new outlets by means, *e.g.*, of polytechnic education, whereby those, who are unfit or unable to proceed to a university, might be enabled to earn their living in a way honourable to them and useful to the society.

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INDIAN INSTITUTE OF SCIENCE.—It was an entirely new departure in the history of Indian philanthropy when the late Mr. J. N. Tata gave away thirty lakhs for the establishment of a research institute of science. Public hopes ran high at the time, and it can only be regarded as a public misfortune that those high hopes have not been materially realised so far. That there has been something wrong in the state of Denmark has been a wide-spread feeling amongst Indians for years past. It has even been asked how it was that such a shrewd man as Jamsetji Tata could have given away lakhs without proper guarantees that there should be forthcoming a due return to his countrymen for his money. The Committee appointed in November 1921 by the Governor-General of India in Council "to make enquiries and recommendations in regard to the Indian Institute of Science" did not come a moment too soon. The Report of the Committee that has seen the light of day, while frankly acknowledging the defects of the past, has made many suggestive recommendations for the future. It insists on the necessity of coupling teaching work with higher research and puts down its foot on the old

dubious practice of professors carrying on research at the expense of the Institute and pocketing all the profits accruing from their researches. Of course it expects the professors to be paid at a sufficiently high rate to ensure their concentration on their work and their independence of any temptation to profit at the expense of the Institute. The Committee recommends that the staff should accept no private practice involving experiment, but they have no objection to a purely private consulting practice.

The Institute has so far been engaged only on work which can be expected to give some tangible pecuniary work. While there is nothing wrong in this, it has perhaps gone too far in not encouraging—if not discouraging—pure research without any economic motive. The Committee very rightly note it as a serious defect of the Institute that at present there is no department of Physics, since in their opinion, “it is obvious that no institution dealing with the higher aspects of Chemistry, or of Electrical Technology, can be regarded as of satisfactory constitution unless it includes a strong department of Physics.” The history of Science has proved it beyond doubt that Nature yields her secrets most profusely to those who come to her in a spirit of pure devotion without insisting on being paid in cash. It is to be earnestly hoped that instead of specialising in Industrial Chemistry the Institute will tend to foster also a spirit of pure research.

In section 68 the Report speaks of the “considerable advantages” that the proximity of the Institute confers on the University of Mysore. Would it not be possible for the M.Sc. students of the Mysore University to work in the laboratories of the Institute? If this were possible, it would link up research with a university, relieve our University of the heavy burden of maintaining costly laboratories for the sake of a few students, while Mysore would have a definite return for the handsome annual contribution made by His Highness’s Government to the Institute. Such an arrangement will make for that co-ordination of activities we spoke about in connection with the University of Madras, and prevent that waste which useless duplication inevitably involves. But whether Mysore benefits or not to this full extent, we earnestly hope that the future will not see a repetition of the rumours unhappily associated with the Institute in the past and that it will prove to be, under the impetus of the Report, a real research institute, really Indian in its aims and worthy of that great Indian industrialist whose philanthropy raised before his countrymen the vision of an India rejuvenated by the breath of Science.

COLLEGE CONGESTION.—The trouble connected with the congestion in the Central College has drawn public attention far beyond the confines of the Mysore State. As things are, the question is one of recurring difficulty. It is only to be hoped the reorganisation of the University will be accompanied by a reorganisation of secondary education in the State, and then alone a more or less satisfactory solution of the present difficulty will offer itself. In the meantime Mr. D. S. Herrick of the United Theological College, Bangalore, kindly draws our attention to an article from his pen in the July issue of the *Christian College Magazine*. Therein he discusses various intelligence tests, and he writes to us to say "the use of intelligence tests seems to be a means of solving a problem that is said to confront the Mysore University, *viz.*, the problem of selection." Students of psychology are bound to look upon this suggestion with a certain amount of partiality, but the public will refuse to be satisfied with it. The point at issue between the University authorities and the public is not as to who are to be selected and who are to be rejected. The real point of difference is that the University, in the interests of efficiency, insist upon admitting only a limited number, while the public argue that every one who has passed the Entrance Examination and seeks to join a particular college shall be automatically admitted. The conflict is easily intelligible. The University looks at the question from an educational standpoint, and this is the only standpoint open to it. The public on the other hand look at it entirely from an economic stand-point, and it is immaterial to them whether the standard of education suffers or not, so long as the particular individual they may be interested in gets the desired admission. It can only be regarded as a sad tragedy that after sixty years of university education in India there are still people, including even some educationists and many graduates, for whom the cultural aspect of education is a mere myth and the only reality of education is the hard cash it enables a man to get. Far be it from us to abjure the sway of King Hunger, but facts have shown again and again that the money value of a degree is no more what it used to be, and is certainly less than many another career which can be prosecuted with a very modest modicum of education. The sooner this fact is realised by the public, the better it will be for all parties concerned: new avenues of service will be sought and the University will be freed from the inrush of the purely economic-minded, and to that extent it will be freer to develop its own aim of fostering culture without being swamped by economic motives. Till this happy end is realised, Mr. Herrick's suggestion, however intrinsically sound, can only hope to be received by the public as an interesting intellectual

curiosity. Any way, we trust that the readers of the article of Mr. Herrick will realise that there is such a thing as intellectual inequality even amongst those who have passed a certain examination, and people who refuse to accept this simple fact in the desecrated name of democracy prove themselves as incapable of understanding genuine democracy as incapable of studying university problems as educational problems.

A VISIT TO AUSTRALIAN UNIVERSITIES. II.

THE UNIVERSITY OF MELBOURNE.

EARLY in the morning on the 13th December 1922 the *Naldera* dropped anchor in the harbour of Melbourne. As at Adelaide, a friend who was Secretary of the Colonial Institute came on board to drive us to the Melbourne University, where we were received by Dr. Ernest W. S. Keats, Professor of Geology and President of the Professorial Board, and Mr. Bainbridge, Registrar of the University. Sir John Henry Macfarland, Chancellor, kindly called later to meet us. My companions Sir Dorab Tata and Dr. Wadia excused themselves, as Sir Dorab was unwell and was too weak to go round the buildings. They left me to go with Professor W. S. Keats and Professor Scott to see the various laboratories and lecture rooms of the Arts Faculty in the Main Building of the University. The building is of Gothic architecture with its cloister-like corridors and beautiful gardens in the quadrangle and open spaces. The Main Building is the central structure round which are arranged the residences of Professors, the Residential Colleges, namely Trinity, Ormond and Queen's and the Roman Catholic College, the Conservatoire of Music, the Schools of Engineering, Mining and Geology, the Medical Schools and the University Union. The famous Wilson Hall with its lofty Gothic ceiling and stained glass windows, on which are represented figures of Kings and Queens of England and of eminent statesmen, philosophers, poets and authors of all ages, is equal in beauty and grandeur to any similar building at Oxford or Cambridge. Its walls are covered with oil paintings of famous Chancellors, Vice-Chancellors and Professors of the University. It is used on ceremonial occasions and for examination purposes. The entire grounds of the University cover an area of 110 acres. Close to the Conservatoire of Music are residences for about 40 women students. In the denominational colleges there are only about 250 resident students. All others, about five times that number, come for instruction from their homes in the town. In the middle of the grounds is the Oval and Cricket Pavilion. Every student eagerly joins in the games. There is no Director of Physical Education. The University Library is very large, but is at present inconveniently housed in several rooms. The need of a separate suitable building for the Library is greatly felt.

I visited the Ormond College which is a Presbyterian College. It has a magnificent common room and a large dining hall and a library. The residential rooms are well furnished and comfortable with sitting rooms attached. After going over all the grounds of the University, Dr. W. S. Keats took me to his house for lunch, where Sir Dorab Tata, Dr. Wadia and I had the pleasure of meeting Professor Sir Orme D. Masson, whom we had met before at Bangalore, and Sir James Barrett, K.B.E., a distinguished member of the University Council.

Melbourne is a beautiful town with magnificent streets and buildings and beautifully laid out gardens and boulevards. The Botanical Gardens cover a large area and are beautifully laid out. The principal streets outside the busy portion of the town are divided into four parts lengthwise with trees, shrubberies and lawns between for different kinds of traffic and pedestrians, and the drive to St. Kilda is one of the prettiest in the world.

Before I give some details of the constitution and work of the University I am tempted to digress in order to give a few facts of the history of the Education Department of Victoria of which the University is the crowning part. The first elementary school was opened in a low roofed wooden building on the site of a sheep farm in the little village of Melbourne on the Yarra-Yarra river in 1837. From the commencement the Governor of New South Wales was desirous of introducing into Port Philip District a system of education by which "children of different religious tenets may be instructed without distinction on the plan now adopted in Ireland." Within the short period of ten years the cry was raised for higher education, and a proposal was made to establish a college in Melbourne in the forties, where English, Mathematics, Natural Philosophy, Natural History, the Ancient Classics and Modern Languages can be taught. The Melbourne Academy was founded in 1851. In 1844 Mr. Robert Lowe, afterwards Lord Sherbrooke, famous for introducing the "system of payment by results" into England was instrumental in forming a select committee of the Legislature which reported that out of 25,000 children in New South Wales 13,000 were receiving no education at all. This committee condemned the system of the Denominational Board and advocated the creation of a National Board of Education, which was the first organisation in any part of the British Empire leading to secular, free and compulsory education for all children. In January 1848 the first General Education Board was appointed to attend to the needs of the National Schools of New South Wales.

In 1851 the Port Philip District was separated from New South Wales and became the Colony of Victoria. The same year was marked

by the discovery of very rich gold fields within its borders. A large percentage of teachers were smitten with gold fever, and the cost of schools and salaries of teachers rose enormously. Schools were opened wherever there were colonies of gold diggers. In course of time when the surface diggings were exhausted, permanent towns arose over the gold fields for quartz mining, and the miners both successful and unsuccessful also gradually turned their attention to the cultivation of land. A settled life in towns led to the establishment of schools in large permanent buildings instead of the tents which once served as school houses. In 1862 the Denominational and National School Boards were abolished by the Common Schools Act, which established a Board of Education to give four hours' secular instruction daily in State-aided schools placed under local committees. In 1853 an act was passed which provided for the foundation of the Melbourne University.

In 1866 a Royal Commission was appointed to inquire into the state of public instruction under the Common Schools Act. This Commission reported that out of 170,000 children of educable age only 76,304 were at school, and recommended that a law be created to make elementary education compulsory, to exclude sectarian teaching but to sanction and encourage religious teaching, to appoint a Minister of Public Instruction, to admit teachers into the public service and to establish a training school for teachers. The inclusion of religious but non-sectarian teaching, however, created great difficulties. About this time public opinion was aroused in England to establish secular and compulsory education. Canon Kingsley in 1869 advocated in forcible language the establishment of secular compulsory education. "The only way of making parents understand that educating their children is an indefeasible duty, is for them to be taxed by the State itself and for the State to say, 'There is your money's worth in the school. We ask no more of you; but your children shall go to school or you shall go to gaol.'" At last in 1872 the Education Act was passed for Victoria to make education secular, compulsory and free, and to establish a department of education under a Minister of Public Instruction. The provisions of this Act were not found at the time in the educational law of any other part of the British Empire. Education was made compulsory for all children between the ages of six and fifteen years. For absence from school parents were fined five shillings for the first offence and twenty for each successive offence or in default imprisonment was inflicted for a term not exceeding seven days. Vast sums were spent on school buildings, school furniture and school gardens. Great improvements were made in the qualifications and salaries of teachers, the inspection branch

was thoroughly reorganised, the pernicious Results System for gauging the work and remuneration of teachers was abolished, the course of instruction was revised, drawing, singing, manual training, kindergarten, drill, gymnastics, and needlework and cookery were added to the primary curriculum.

In 1880 it was first proposed to graft technical training on the State school system. There were already three important schools in the Industrial Museum and the Mining Schools of Ballarat and Bendigo. A Working Men's College was opened in Melbourne in 1887. Schools of Science were opened all over the State. The grants for the maintenance of technical schools amounted for a few years together up to 30th June 1892 to a total of £120,135. At the end of 1900, Victoria had 18 technical schools, four of which afforded instruction in science, art, and trade subjects, five in art and science, two in art and trade, while five schools confined their attention to art and two to science only.

In 1899 a Royal Commission was appointed on technical education. Five Progress Reports and a Final Report were issued before August 1901. Two Progress Reports deal with primary education, and three with agricultural education. The fourth report on the state of agricultural education received encomiums from Sir Michael Sadler. The final report made recommendations on the reorganisation of the education department, continuation schools, industrial education, technical schools, technical art instruction, mining education, commercial education, a central college of domestic economy, the college of pharmacy, and the university mining school. The report insisted on the value of kindergarten methods and manual training in primary schools, the latter to be begun before the fourteenth year of age as a basis of all technical instruction. Experimental science was introduced with the State school system as the groundwork of agriculture, and in the rural schools the rudiments of agriculture and horticulture were taught and school gardens were established. The reports of the Commission on technical education clearly bring out the views that "Education should so develop the individual that he is best prepared for the work of life and for service to the community," and that "the right kind of education is society's greatest and gravest problem, for in the last analysis the school is society shaping itself to its future ends."

Continuation schools and high schools to bridge the gap between the elementary school and the university came into existence in 1901 to form the State system of secondary education. There are now 31 secondary schools in addition to the numerous higher elementary schools and junior technical schools, which provide some form of secondary

instruction. "The first aim of secondary schools is to provide a good general education, mental, physical and moral, which shall fit the pupil to play his part as a citizen of modern democracy. The second is to give the training necessary for his future life work and to enable him to make the right use of leisure." Special attention is devoted to manual training, agricultural science and economical subjects for boys, and to domestic arts and science for girls. In the agricultural high schools one-third of the time is given to farm and experimental work, one-third to agricultural science, manual work and drawing, and one-third to English History and subjects of general education.

The education budget includes the grants paid to the university and the important part taken by the university in education makes it of special interest to the department. Every year more and more students proceed to the university from the high schools and technical schools. In addition to the large number of students who take degrees in Arts, Science, Agriculture, Law, Medicine and Engineering, considerable numbers join the various schools at the university, of Education, Mining, Veterinary Surgery, Dentistry, Architecture, Commerce and Domestic Economy. These schools have been founded since 1900 and grant diplomas or licences. The Government grant to the university was raised from £9,000 in 1904 to £20,000 in 1921, which amounts to about one-third of the total expenditure on the University. Out of the total expenditure of £89,572 on the University in 1920, the Government grant was £29,800 inclusive of some special allotments. The University has greatly helped the advance of the Education Department which is admirably organised and has become a model to other parts of the empire.

The University of Melbourne was established in 1853, consisting of a Council and a Senate. The Council consists of twenty-three members of whom twenty are elected by the Senate and three, who are called additional members, are appointed by the Governor-in-Council. Of the three additional members one is a member of the Legislative Council and two are members of the Legislative Assembly. The Council elects two of its own members to be Chancellor and Vice-Chancellor annually or whenever a vacancy occurs. Every member of the Council holds office for five years. The Senate consists of all persons who have been or may hereafter be admitted to any degree of Master or Doctor in the University. The Senate elects one of its own members as Warden annually who presides as Chairman. In the Council the Chancellor or Vice-Chancellor presides. The Council has the entire management and superintendence over the affairs, concerns and property of the university, and can appoint and dismiss all professors, officers and servants.

The Council has the full power to make and alter any statutes and regulations touching the discipline of the University, the matriculation of students, the examinations for fellowships, scholarships, prizes, exhibitions, degrees or honours, and in general touching all other matters whatever regarding the University. But no new statute or regulation or alteration or repeal of an existing statute can come into force until it is approved by the Senate. The Senate may amend any statute or regulation submitted by the Council and may return the same so amended for the further consideration of the Council, but cannot originate any statute or regulation. The Council meets every month and can adjourn to any intermediate period. The Senate has two sessions in each year in June and October and may meet from day to day. The quorum of the Senate is twenty.

At the commencement there were only four professors of (1) Classics, (2) Mathematics, (3) Natural Science and (4) Modern History and Literature, Political Economy and Logic. In 1855 there were only 16 undergraduates. Degrees in Law were instituted in 1860, in Medicine in 1862, Engineering in 1871, Science in 1887, Music in 1890, Dental Surgery in 1907, Agricultural Science in 1908, Veterinary Science in 1909 and the diploma of education in 1903. There are at present eight faculties of Arts, Science, Law, Medicine, Engineering, Dentistry, Agriculture and Veterinary Science.

There are besides the Faculties various Boards, the chief of which is the Professorial Board for the consideration of questions relating to the studies and discipline of the University. The Chancellor and Vice-Chancellor are ex-officio members and the Registrar acts as Secretary. The Professorial Board meets at least once a month, reports to the Council on any question submitted to it by the Council, considers any report submitted to it by any faculty or the Schools Board, reports to the Council on all applications for the office of Lecturer, Demonstrator or Examiner. The Board prescribes all books and details of subjects for lectures or annual examinations. The President of the Professorial Board exercises a general superintendence over the educational affairs of the University and is the chief officer of the University in matters of discipline. When a student has been guilty of any misdemeanour or breach of discipline the Professorial Board may inflict such punishment as it thinks fit upto exclusion from the University. The President may fine a student up to twenty shillings for any one offence. Every professor or lecturer may fine a student for misconduct in his class or neglect of work up to twenty shillings. The President of the Professorial Board may require from any Professor, Lecturer or Examiner the

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explanation for any alleged neglect of duty, misconduct or inefficiency, and report to the Council any case of neglect of duty, misconduct or inefficiency.

There are at present twenty Professors of (1) Classical Philology, (2) Mathematics, (3) Geology and Mineralogy, (4) History, (5) Physiology, (6) English Language and Literature, (7) Pathology, (8) Natural Philosophy, (9) Engineering, (10) Chemistry, (11) Natural and Moral Philosophy, (12) Zoology, (13) Music, (14) Law, (15) Anatomy (16) Botany and Plant Physiology, (17) Veterinary Science, (18) Agriculture, (19) Economics and Sociology, (20) Education. Each Professor holds office for life or *quam diu se bene gesserit*, as long as he gives satisfaction or until his resignation or removal or dismissal by the Council. Five Professors of Music, Botany, Veterinary Pathology, Agriculture, and Education, are appointed only for five years each. The Council may censure, suspend or dismiss a professor by an absolute majority. The professors are appointed by a committee of appointments in England and a local committee of members of the Council acting together.

Besides the Professors there are four Associate Professors and 112 Lecturers, Demonstrators and Tutors. In the Faculty of Medicine there is a very large body of physicians, clinical lecturers and tutors in the recognised hospitals. In the Conservatoire of Music there are besides the Director, 52 other teachers.

The Schools Board is a Board of School Studies, School Inspections and School Examinations. It consists of 28 members with the Professor of Education as ex-officio Chairman and the Registrar as Secretary. The Schools Board prescribes annually all books and details of subjects for the two public examinations called the School Intermediate and the School Leaving Examinations which correspond to the Junior and Senior Cambridge Examinations. Every person not being less than sixteen years of age who has obtained the School Leaving Certificate is qualified to matriculate. Any secondary school in Victoria may apply to the Schools Board to be inspected by the Secondary School Inspectors.

The academical year of the University is divided into four terms. The first term lasts for twelve weeks, and the second and third term for ten weeks each. The fourth term is called the Examination Term which lasts for four weeks at the end of the year. A course of lectures in each subject for a year extends over 26 weeks as a rule.

The Arts course extends over three years. There is no Intermediate Examination but instead there used to be annual examinations at the end of each year, which had to be passed before the next year's course

was begun, those passing the last year's examination being entitled to a Pass or Honours Degree. In Arts and Law the division of the course into years has been recently abolished but the student is expected to pass in a certain number of subjects in a given order during his course, before he can obtain his degree, the examinations in subjects being held at the time of the annual examinations in December or of the supplemental examinations in March. In all other faculties the student has to pass the examinations at the end of each year of his course before he proceeds to the next year's course and the last examination if successfully passed entitles him to a degree.

The fees for the degree courses in Arts and Music are 12 guineas a year for three years, in Science £22 a year for four years, in Agriculture £21 a year for three years, in Law 12 guineas a year for two years, in Medicine £23 a year for five years, in Engineering and Veterinary Science £22 to £25 a year for four years. For Diploma and License courses in Agriculture, Mining, Metallurgy, Education, Architecture, and Veterinary Science the fees vary from £12-12 to £25 a year for two or three years. In addition to the fees for courses there are Examination and Certificate fees.

In 1915 the total number of students taking degree courses was 907 and the number of students taking single subjects was 203. In 1920 the number of those taking degree courses was 2,163, while the number of those taking single subjects remained the same: 203. Of the total number of 2,366 students in 1920, 576 were students of arts, 212 of science, 235 of law, 782 of medicine, 186 of engineering and the rest of other schools. There were 164 students in the Conservatorium of Music. In 1920-21 the following degrees were conferred: Bachelor of Arts ordinary 67, Honours 30, Bachelor of Science 31, of Laws 30, Medicine and Surgery 64, Civil Engineering 13, Mining Engineering 3, Electrical Engineering 2, Mechanical Engineering 2, Dental Science 16, Master of Arts 36, Master of Science 7, Doctor of Medicine 15, Diploma of Education 39. In the public school examinations there were 3,231 candidates for the School Intermediate of whom 1,126 or 34 per cent passed, and 1,638 for the School Leaving of whom 716 or 43 per cent passed.

The total number of post-graduate Research students, excluding members of the staff and the senior students doing some research work as part of their course was 14 in 1920, distributed as follows: Botany 2, Chemistry 3, Engineering 5, Natural Philosophy 1, Physiology 3.

During the year 1920-21 a large number of contributions to literature and science were published by members of the University staff and

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students working in the University laboratories. The enumeration of these contributions covers four closely printed pages of the Calendar.

For social intercourse and sports there are the University Union, the University Recreation Reserve with the buildings upon it, the University Sports Clubs approved by the Council, the University Club House. Every student is expected to belong to these and pay an annual fee ranging from ten shillings to a guinea to each. The affairs of the Union are managed by committees of students in the different departments, such as the Reading Room, the Billiard Room, the Midday Lunch, the Sports. But the final authority is the Union Committee of which the Vice-Chancellor and the President of the Professorial Board are ex-officio members. Other professors are also associated with the students on the Union Committee.

The University of Melbourne has been liberally endowed although its grants for future development have not been fully supplied. A few of the generous gifts may be mentioned : the Hastie bequest of £19,000, Sir Samuel Wilson's bequest of £30,000 for the Wilson Hall, Mr. Francis Ormond's gift of £20,000 who also left £100,000 to Ormond College. Recently the Chamber of Manufacturers gave to the University £1,500 a year. The total of benefactions up to 1919 amounted to £193,067 or about 29 lakhs of rupees. An appeal was made by the University in 1920 for more funds for teaching. The result was that some £52,000 were subscribed of which £6,000 were for research.

The total ordinary income of the University for 1920 was £117,234 or seventeen lakhs and a half of rupees. Of this amount the Government grants amounted to £37,541 or 32 per cent, the Lecture fees to £40,231, the Examination, Degree and Certificate fees to £6,454, Public School Examination fees to £11,829, Music Examinations fees to £2,292, Sports fees to £1,601, Club House fees to £1,587. The fees paid by the students altogether amounted to £64,494 or 50 per cent of the whole cost. The State grants and the fees paid by students may well give food for reflection to all interested in the finances and growth of Indian universities.

THE UNIVERSITY OF SIDNEY.

Sidney is one of the largest and most flourishing cities in the British Empire. It is the principal city of Australia with a population of over 500,000. Its climate though warmer than that of Melbourne is pleasant throughout the year, the mean temperature of summer being 70°F, and that of winter 53°F. The air is dry except in summer. It possesses one of the most beautiful harbours in the world, which is formed

by an inlet of the Pacific Ocean seventeen miles long with its innumerable inland creeks and little picturesque bays surrounded by hills, the sides of which are covered with beautiful buildings, gardens and plantations. The harbour is full of shipping, and is crossed by numerous steam ferries that leave the Circular Quay every few minutes. The famous beaches are crowded with thousands of bathers in the summer. The city is remarkable for its long streets, tall and handsome buildings built of stone, long streets of fashionable shops and rows of banks and mercantile firms, its hotels and restaurants. The Australian Museum, the Geological Museum, the Technological Museum, the National Art Gallery, the Free Public Library, the Sidney Hospital, the Churches, the Town Hall, the Botanical Gardens, the famous Zoological Garden are remarkable for their beauty and grandeur. The University buildings and grounds make a great addition to the beauty of the city. The city has numerous parks and drives in its vicinity.

During my short stay in Sidney by kind invitation of Mr. H. E. Barff, Warden and Registrar, I visited the Sidney University on the 19th December 1922. Mr. Barff after a lifetime devoted to the university has recently retired. He was honoured by His Majesty the King by a title in the New Year's Honours Gazette of this year. Professor M. W. MacCullum, M.A., LL.D., Professor of English Literature was kind enough to show me round and give me interesting information on various subjects relating to the university.

The University occupies a beautiful plot of over 200 acres at some distance from the busy parts of the city but easily approached by the excellent system of tram lines. In the grounds are the main building, the great hall with a lofty roof seventy feet high and with walls covered with portraits of Chancellors, Vice-Chancellors and Professors, the Fisher Library with its seven stories built of steel and glass and a magnificent reading room large enough to accommodate more than 250 students at a time, the beautiful Medical School, and separate buildings for Botany, Organic Chemistry, Inorganic Chemistry, Geology, Physics, Zoology, Engineering, Agriculture, Veterinary Science, the University Union, and the four colleges, *viz.*, St. Paul's, St. Andrew's, and Wesley College, which are denominational colleges, and the non-sectarian Women's College. In the centre of the grounds are the oval with its grandstands, and the tennis courts and hockey ground. In the denominational colleges the students receive instruction in the doctrine and discipline of their respective churches and teaching supplementary to the lectures of the university professors. The number of students in all the colleges together is hardly one-seventh or one-eighth of the total number.

Most of the students reside with their parents or guardians in the town or in licensed boarding houses. The total number of students is about 3,000 of whom 700 are women.

The Training College for teachers is on the grounds of the University, but it is not a constituent college. It is maintained by the Education Department. The University Professor of Education is its Principal. Educational subjects form some of the optional subjects of the B.A. degree examination. The teachers of the Education Department pay no fees to the University. They take the B.A. degree in three years, and if they wish to take the diploma of education they devote an additional year to training subjects. They get practice in teaching in the neighbouring schools.

The State does not pay the university for the education of teachers. But it contributes £20,000 for the free education of 800 exhibitioners. The state provides one exhibition for every five hundred of population. These exhibitions are allotted in order of merit on the results of the school leaving examinations. The exhibitioners pay no fees. The usual amount of fees for teaching is about £25 a year.

The University of Sidney was incorporated by an Act in 1850. By a Royal Charter in 1858 the same rank, style and precedence was granted to graduates of the Sidney University as are enjoyed by graduates of Universities within the United Kingdom. The constitution of the University is very simple. The University is declared to be a body politic and corporate, consisting of a Senate of 24 Fellows, four of whom are appointed by the Governor, one is elected by the Legislative Assembly, five by the teaching staff of the University, ten are elected by the graduates of the University of over 21 years of age and three are co-opted by the aforesaid Fellows. The members of the Senate hold office for five years, except that the chairman of the Professorial Board and four other Fellows elected by each of the four Faculties of Arts, Law, Medicine and Science hold office for two years. The Chancellor and Vice-Chancellor are elected by the Senate out of their own body. The former holds office for three years, and the latter for one year. The quorum of the Senate is eight. The Senate has full power to appoint and dismiss all professors, tutors, officers and servants of the university. The Senate has the entire management of and superintendence over the affairs, concerns and property of the university. It makes by-laws and regulations relating to (a) the discipline of the University, (b) examinations for and the granting of scholarships, degrees, certificates or honours, (c) the establishment and regulation of evening tutorial classes in science, economics, history and sociology, which are open to all students, whether

matriculated or not, to whom diplomas are granted after at least one year of study of any one subject, and (d) all other matters whatsoever regarding the University. Such by-laws and regulations, however, are submitted for the approval of the Governor. The Senate meets on the first Monday of every month and may adjourn from day to day. The university makes an annual report of its proceedings to the Governor, who is ex-officio visitor of the university.

There are no religious tests for the students and the University privileges are common to both sexes.

The University has a statutory annual endowment of £30,000 from the Government of New South Wales, and it also receives special Parliamentary grants for specific purposes like the Evening and Extension Lectures, Departments of Agriculture and Veterinary Science, of Botany, Organic Chemistry, Economics and Commerce, Mechanical Engineering, and also for Science Research Scholarships, the Tutorial Classes and a Professorship of Architecture. Since 1912 the annual endowment of the State has been calculated at the rate of one pound for every fifteen persons in the State.

There are ten Faculties in the University, *viz.*, Arts, Law, Medicine, Science, Engineering, Dentistry, Veterinary Science, Agriculture, Economics and Architecture. In the Faculty of Arts alone there are 11 Professors, 2 Associate Professors and 19 Lecturers. In the Faculty of Science there are 7 Professors, 3 Associate Professors, and 33 Lecturers and Demonstrators. In other faculties the teaching staff is on the same liberal scale.

The title of Professor is distinctive of those public teachers upon whom the Senate shall have conferred the title, and no person shall be recognised as professor without the express authority of the Senate. The Professors in the several Faculties with the Chancellor, Vice-Chancellor and the Warden form the Professorial Board. The Professorial Board superintends the discipline of all students. All members of the Professorial Board and public teachers are authorised to inflict a fine for breach of discipline not exceeding two pounds, provided that every public teacher who inflicts any such fine shall report the circumstance immediately to the Professorial Board. An appeal lies from the Professorial Board to the Senate which may confirm, vary or annul the decision.

The Proctorial Board is formed of the Warden, the Chairman of the Professorial Board and the Deans of four Faculties. It is charged with the duty of investigating breaches of discipline and the imposition of penalties in accordance with academic usage subject to the approval of the Professorial Board.

The course for the degree of B.A. extends over three years, that for the LL.B. degree extends over four years. The LL.B. degree is recognised as a qualification for admission to the Bar. The course for the M.B. B.S. degree extends over a period of five and two-thirds years. Diplomas in Public Health and Tropical Medicine are also granted. In the Faculty of Science the course for the B.Sc. Degree extends over three years. In the Faculty of Engineering degrees are given for Civil, Mechanical and Electrical Engineering and Mining and Metallurgy. The curriculum extends over four years at least.

Candidates for the degree of Bachelor of Arts must take ten qualifying courses of at least 90 lectures each with class or laboratory work. An examination is held upon completion of each course. Honours are awarded at graduation to those who are not of more than twelve terms standing from Matriculation and have obtained credit or distinction at the yearly examinations and gone through the prescribed course for honours.

The University grants a Degree of Bachelor of Science in Domestic Science (B.Sc. Dom.) to those ladies who pass in seven courses of science including Physics, Chemistry, Physiology and Botany or Zoology, and a course of Public Health in addition to the course in Domestic Science at the Sidney Technical College, which includes Cookery, Household Management, Laundry Work and Home Sanitation.

Extension Lectures are delivered in Sidney and other places on application. Fourteen sets of Extension Lectures were delivered during the year 1921 on various subjects. Each course consists of six to ten lectures and concludes with an examination. The usual subjects for these lectures are English Literature, History, Political Economy, Logic and Mental Philosophy, Commercial Law, Science, etc. The lectures are open to all who are not members of the University on payment of a fee. The University Extension Board consists of not more than eighteen members of whom four are members of the Senate and four are members of the teaching staff.

Besides the University Extension Board there is a committee called the "Joint Committee for Tutorial Classes" which undertakes the organisation, supervision and control of tutorial classes, and of such study circles as may be deemed advisable.

The general supervision of the financial affairs of the University is entrusted to a Finance Committee chosen annually consisting of the Chancellor, Vice-Chancellor, the Warden and Registrar, and five Fellows of the Senate. Four members form the quorum. The Finance Committee meets once a month or oftener.

The number of Matriculates who proceeded to higher studies in 1921 was 575 of whom 185 were women. In the Faculty of Arts there were 742 students of whom 364 were women, in the Faculty of Law there were 305 students, in the Faculty of Medicine there were 985 of whom 126 were women, in the Faculty of Engineering there were 219 students, in Dentistry 77, in Veterinary Science 16, in Agriculture 27, in Economics 133, the total number in all Faculties being 2,711. There were besides 326 students in the Diploma courses. The total number of students increased from 1,736 in 1917 to 3,275 in 1921.

The total number of degrees conferred during 1921 were : M.A. 14, B.A. 130, B.Ed. 17, LL. B. 21, M.D. 2, M.B. 88, Ch.M. 99, B.D.S. 5, D.Sc. 1, B.Sc. 39, B.E. 37, B.V.Sc. 1, B.Sc. (Agr.) 5, total 459. From the foundation of the University to 1921 there were only 18 Bachelors of Agriculture and 20 Bachelors of Veterinary Science.

The total amount of Lecture fees and cost of graduation is £81 for the B.A. degree, £27 for the Diploma course in education, £102 for the degree in Economics and Commerce, £46 for the Diploma in Commerce, £103 for the LL. B. degree, £235 for the M.B.B.S. degree, £105 for the B.Sc. degree, £167 to 181 for an Engineering Degree, £124 for the Degree in Agriculture or Veterinary Science.

The total amount of benefactions bestowed by private persons upto 1921 is £537,691 or Rs. 80,62,365. The chief benefactions are Edwin Dalton's £8,000 for scholarships, J. H. Challis' bequest of property of the value of £276,000 to be applied to the general purposes of the University, Thomas Fisher's gift of £30,000 for a library, P. N. Russell's gift of £100,000 for endowment of the School of Engineering, Alfred Dixon's gift of £7,050 for the purchase of the Aldridge Collection of Minerals, and J. F. Archibald's endowment of £7,135 for the promotion of Cancer Research. Another bequest of £25,000 for the general purposes of the University was notified in 1922. The total amount of the receipts from private foundations in 1921 was £14,508.

The ordinary receipts of the University in 1921 amounted to £159,517. The statutory endowment of the Government of New South Wales was £30,000 ; other annual Parliamentary grants amounted to £47,712. The Lecture fees amounted to £33,703, Matriculation and other fees to £8,027, the fees of Tutorial Classes and University Extension to £8,087. On the expenditure side Salaries absorbed £64,698, Examiner's fees £1,974, Scientific Apparatus £10,227, University Extension £376, and Tutorial Classes cost £6,307.

The list of official publications of the university and papers of scientific value or special academic interest prepared by University

officers and scholars for the year 1921 covers ten closely printed pages of the Calendar.

There are a large number of clubs at the University in which the Chancellor, Vice-Chancellor, and Professors take active interest. Although there are very few students in residence at the colleges, these clubs make the social life of the University an important means of refining the manners and improving the education of the students, besides making the social life of the students pleasant.

The Sydney University Union has a fine building given by Government. The annual fee paid by the students is £1. There are a beautiful common room, a games room, committee rooms, a dining room, and three or four shops on the ground floor of the building. In the middle of the day a cheap and wholesome lunch is provided at a small cost and in the evening dinners. The annual income of the Union is £11,000 inclusive of the profits of catering and shops and the fees. The Chancellor is Patron of the Union and there are two representatives of the Senate on the Board of Directors. But most of the members of the committees are students. There is a Finance Committee, a House Committee and a Debates Committee.

The Sydney University Women's Union is as great an intellectual and social centre for women, as the University Union is for men. It is located in Manning House so called in memory of Sir William Manning, Chancellor, at whose suggestion the legislation was initiated which in 1882 admitted women to all the privileges enjoyed by men at the university. The Manning House contains a dining room, reading room, common room, committee rooms and an assembly hall as well as other rooms for study and recreation. The open grounds provide accommodation for rest or study in the open air. The Union is under the control of a Board of Directors, two of whom are nominated by the Senate and eight are elected by the members. The subscription is £1 a year.

There are also an Undergraduates' Association for men, another for women, an Arts Society, a Medical Society, a Science Society in which lectures on Geology, Biology, Physics, Mathematics, Chemistry, etc., are given by prominent scientists, a University Club which has for its objects the promotion of social intercourse and good fellowship among the University men and the promotion of literary, scientific and artistic culture and research, Sports Unions for men and women, a Cricket Club, an Athletic Club, Hockey, Football and Rifle Clubs, and lastly Women's Social Service Society, which exists for the purpose of educating University women in altruistic duty as citizens and providing them with an opportunity of first-hand study of social and economic conditions.

H. J. BHABHA.

RELIGIOUS UNITY.

I.

RELIGION has always been and will continue to be the supreme concern of the soul of man. Now and then, this or that interest may swim into the horizon and fill our vision and we may feel that the springs of religion are dried up. If, however, we do not mistake the surface waves for the set of the ocean currents, we shall see that religion is always a living force. The rising tide of wealth and materialism, the growing conquests of science and the aggressive imperialist ambitions suggest to the unwary observer of our age that religion is a spent fire. But they reckon ill who leave religion out. The thirst of the soul cannot be satisfied by the things of the world. By accumulating the fleeting and the temporal, we cannot build the kingdom of God. The disillusionment of the world which is too much with itself is already in the air, and from different sides the call to a return to the fundamentals is heard.

If religion is not a dead issue, does it, can it, contribute to the spiritual unity of the world? The past history of religion is not encouraging. In the name of God, worshippers in one age lusted to 'hew Agag in pieces before the Lord'; in another, crusades and massacres, tortures and savageries deplorable beyond description have been perpetrated. Men never commit evil deeds with greater gusto and confidence that they are right, than when they do so in the name of religion. Misunderstandings and antipathies between the Hindus and the Muhammadans, the Christians and the Jews, the Protestants and the Catholics are of frequent occurrence. Many of those who call themselves religious are filled with a spirit of bigotry and intolerance and consider themselves to be commissioned by God to convert the whole world through fire and sword to their own faith. Pan-Islamism, Pan-Christianity, Pan-Buddhism are ideals which have a fascination for many of those who profess these religions. Our politicians do not shrink from exploiting religious forms for purposes of national solidarity and imperialist projects. Obviously, religion has not been able to refine the spirit of man and lead him into a life of truth, love and freedom.

The hope of converting the whole world to some one faith, it may

at once be said, is a delusive dream as much as the other dream of making it the possession of one imperial power. Nor is it necessary for the spiritual unity of the world. As a well-understood nationalism is not only not incompatible with international unity but is the only sound foundation for it, even so the religious unity of the world does not exclude the existence of different religions. The historical religions embody the spiritual experiences of the different peoples with their distinctive social evolutions. They will not voluntarily part with their respective individualities. If a superior power employs force and imposes a different religion on the conquered peoples, its tenure is insecure. The law that brutal methods do not make for spiritual growth cannot be broken with impunity. Variety in unity is the order of human nature and if we refuse to reckon with it, we shall have to face defeat in religion as in politics. What the world needs is not an elimination of different religions or a pale syncretism of them all, which will eventually become a new religion but an intelligent understanding of the deeper unity of principle, which will not exaggerate the points of difference. If the leaders of the different religions, who know that every religion when it was formulated based itself, not on authority and tradition, but on experience and reason, who possess the insight which illumines the tradition and makes it glow with vital and hidden meanings not perceived by the ordinary, if they interpret their religions in the light of the eternal values, subordinating all that is temporary and local in them and impress on their followers the essential spirit of religion, regardless of the forms it may assume, it will be a great help towards the spiritual solidarity of the world.

Advance in knowledge and standards of morality is compelling a reconsideration of religious belief. Modern science or pseudo-science, to be more correct, is confidently asserting that there is no reality behind the appearances, no, behind the veil. Comparative religion is said to confirm this conclusion, for no two people agree about their ideas of God. Prophets of this world who are too clever to be religious dismiss devotion as a waste of time and prayer as a foolish business. Negative philosophies like positivism and agnosticism profess to found their creeds "exclusively on what may be proved by scientific reasoning—by the same logical processes by which we calculate the orbit of a comet or explain the origin of a political revolution" (Frederic Harrison: *The Religious Systems of the world.* P. 739). Substitutes for religion in pure morality are also devised. But the incurably religious nature of man cannot be suppressed at the bidding of science. The recent international crisis has increased man's anxiety for God. Religion does not

seem to be so much a luxury of man's existence as a necessity for it. The hopes of humanity are staked on the reality of God. Those who know the weak side of human nature are exploiting the situation by a resort to anodynes. Doubtful of the capacity of reason to demonstrate all things, many are taking refuge in ancient superstitions. Champions of the irrational aver that the strength of a need is the proof that it shall be satisfied. If we want God very much, then God is a reality. Advocates of the moral feeling, aesthetic intuition, religious faith, subconscious suggestion attempt to soften the severities of scientific conclusions. Several cities of refuge from the ruins of religion effected by science have been invented.

True science fulfils, but does not destroy, the demands of religion. It shatters to pieces the orthodox authoritarian religion which bases its teachings on revealed truths. We cannot any more accept the doctrine of the infallibility of a religious scripture or its verbal inspiration by God. While science asks us not to amuse ourselves with fancies and superstitions such as those of hell fire and eternal damnation, it at the same time affirms the validity of the religious experience of man. Comparative religion proves that the religious instinct belongs to the permanent stuff of human nature. Modern science protests against the substitutes devised by a distracted age to satisfy the religious impulse. It is man's possession of reason that makes him a religious being, that enables him to see something beyond the world, beyond his death. To renounce reason is to resign oneself to the absurd and justify all the strange forms of religious feeling from belief in sorcery and fetishism. When the urge of reason relaxes, the forces of unreason invade the citadel of the mind. We cannot ask reason to be silent in such a vital concern as religion. Mere superstition does not suffice to give solid nurture to the soul. Our severely self-critical age cannot sympathise with an unscientific religion which goes against thought, or a utilitarian one which ignores the higher ends of life or an ascetic one which tends to suppress the cherished dreams of humanity. The several attempts to reconcile the apparent conflict between science and religion express in different ways the spirit of doing justice to the fulness of life. They resist the natural tendency to mistake the part for the whole. Newman's reconciliation illustrates the point. He holds along with others that the sanctuary of spirit is beyond the scope of science and protests against the abuse of reason when it tries to test faith in terms of logic. Faith, according to Newman, is rational though we cannot rationalise it. The decisive element in belief is the personal element. His 'illative sense' is a living organon, not a mere method or calculus. It is not a

vague subjective emotion, but comprehends our whole experience. "There is no ultimate test of truth besides the testimony borne to truth by the mind itself." (*Grammar of Assent*. P. 350). Newman asks us to build on the rock of experience, on the logic of personality. The seat of religious authority is in the facts of life. Not in a church, not in a book, but in the depths of religious consciousness can religious certainty be had. To go back to experience, is, as Latimer said, "to smell the word of God and forsake the school doctors and such fooleries." If each religion interprets its tradition in the light of life and experience, it will not only stem the rising tide of indifference and unbelief, but also put an end to the intolerance born of ignorance and restore religion to its central place in life. Modern science is in conformity with the true ends of religion when it insists that the larger hope should be founded on reason and fortified by experience, if it is to sustain us in the struggle of life.

II.

Deep down in every human heart, deeper than race or culture, language or thought, there persists an inextinguishable instinct which leads man to seek for another, since he cannot be alone in the world. The awful loneliness of the world made Pascal exclaim: "The eternal silence of the infinite spaces terrifies me." To get rid of his fear, man seeks for the real. "Merged into the same tree, man grieves at his own impotence, bewildered, but when he sees the other, the Lord, and knows His glory, his grief passes away" (*Mundaka-Upanishad* III. 1). This groping after an other is the secret of the religious adventure. It is a quest for reality. Modern philosophy confirms ancient wisdom, when it asks us to search the depths of our personality for a clue to reality. Gentile, the Italian thinker, is reiterating the advice of the Upanishads to know the Self '*Atmanam Viddhi*,' when he says, "Inward goes the mysterious way which opens up the secret of the world. We must not merely wander round things; we must penetrate into their very heart and the door across which we must step to enter lies alone in *I*." The hidden thing for which man searches in the depths of his nature is not a system of thought or a code of conduct, but a Being, a Reality. It is the real that we touch in experience, though philosophy comes later to reveal and interpret the content of experience. It is not possible for us to describe the nature of this experience in adequate terms. It is not this or that, perception or conception, emotion or desire but something embracing them all and transcending them. It is the life of the soul at its fullest stretch and compass. The divisions of reason and feeling are later

distinctions made by logic, though the actual movement of the soul cannot be reduced to these abstract categories. This experience of the soul is something beyond the mere harmony of intellect, or the crudeness of feeling or the efficiency of will. Interpretative logic finds a place for them all in it and declares that everything that we can think of is there, for is it not, in Plato's phrase, "the contemplation of all time and all existence"? In those moments of deepest insight and experience, we feel absolutely certain that the reality of the human soul is just the reality of the world though layers over layers cover it and hide it from our ordinary vision. This experience tells us that if there is not an all pervading spiritual presence, an unseen reality, nothing can possibly be. This supreme reality, which pervades the infinites of the world and dwells in the hearts of men, the source of our life and the end of our being is what the mystics call the 'One,' the Christians, 'the Father in Heaven,' the Muhammadans, 'Allah' and the Hindus, 'Vishnu, Siva or Kāli.' Religious leaders have always taken their stand on experience which though personal, and therefore authoritative only for those who have felt its power, is still true, because it is verifiable by all men. Though it is not easy to give an account of the real felt in experience, we may describe it as the being which fulfils the ideal longings of the human mind, the truth which completes our logical endeavour, the beauty or the spirit of joy which captures our emotions and the goodness or the holiness which is the perfection of our moral struggle. The religiously minded men call it God. It is the endeavour of every religious man to see the real signified by the traditional symbols and rites. Those who possess the experience are the spiritual seers who know that the forms and dogmas divide while the experience unites. They allow us to address the Supreme through any language and through any sense. The conservatives who are inclined to emphasise the uniqueness of the credal forms rebel against the truly religious who see the one in all. Hermann, the German theologian writes, "Whenever the religious feeling in them soars to its highest flights, then, they are torn loose from Christ and float away in precisely the same realm with the non-Christian mystics of all ages." (*The Communion of the Christian with God*). Again, "Augustine wrote a work of fifteen books on the Trinity, yet when he stood with his mother at the window of the house at Ostia, and sought to express the profound sense he felt of being in the grasp of God, he spoke not of the Trinity, but of the one God in whose presence the soul is lifted above itself, and above all words and signs." (*Ibid.* P. 29). Since the particular dogmas of Christianity are not supported by the highest religious experiences of the most spiritually disposed, Hermann is inclined to repudiate the

experience itself. "The Christian must pronounce the mystic's experience of God to be a delusion" (P 31). In other words, whatever does not conform to the dogmatics of Christianity is a 'delusion.' But critics like Hermann forget that the Christian revelation comes to us ultimately on the authority of One who lays claim to a personal knowledge of the truth of God, an actual experience of the spiritual world which the ordinary man has not. The experience of Jesus does not support the church stories about God. Dean Inge lays more stress than usual among Christian divines on the 'experience' side of religion. In his *Outspoken Essays*, First series he observes, "It encourages us to hope that for each individual who is trying to live the right life, the venture of faith will be progressively justified in experience. It breaks down the denominational barriers which divide men and women who worship the Father in spirit and in truth—barriers which become more senseless in each generation since they no longer correspond even approximately with real differences of belief or of religious temperament. It makes the whole world kin by offering a pure religion which is substantially the same in all climates and in all ages—a religion too divine to be fettered by any man-made formulas, too nobly human to be readily acceptable to men in whom the ape and the tiger are still alive, but which finds a congenial home in the purified spirit which is the throne of the godhead" (P. 232). Since the particular dogmas are subordinated by Dean Inge to the religious experience, he is regarded by many "sincere members of his own Communion" as "angular, dangerous, unorthodox, doubtfully Christian" (Times Literary Supplement 7-11-1919, P. 621).

The Absolute spirit is envisaged by human thought as an intelligent beneficent being, a Personal God, the Eternal Father. It is the human conception of God that has been changing from age to age, from country to country. The growth of religion consists in an ever-increasing approximation of our ideas of God to the truth. An honest God is the noblest work of man. The naturalistic conceptions of a religion of nature gave rise to the monarchical ideas of the Hebrew prophets. The view of God as a zealous vindictive autocrat of the universe who has created a number of vile offending men who have to approach him in a becoming attitude of humility and self-abasement was soon found inadequate. "If gods do deeds of shame, the less gods they" says one of Euripedes' characters. Besides, a transcendent deity estranged from the world and ruling it from outside is not consistent with the deeper logic of life and experience. In the Christian gospels, we have an immanent conception of God, though this immanence is not sufficiently stressed. Jesus, however, repudiates the notion of particular nations dwelling in the

light of God's grace and others sitting in the darkness and the shadow of death. Modern Christian doctrine is not fully aware of the implications of the indwelling of God in all and does not explicitly affirm that man and God are the lower and the higher aspects of one ultimate spirit, different expressions of the one foundational being. There is no reason, however, why there should not be an evolution of the present Christian conception of God. The whole progress of the past religious history illustrates the gradual unveiling of the real, a "shining light that shineth more and more unto the perfect day." If men of religious genius could transform the Elohim who created heaven into the Jehovah and refine Jehovah Himself, conceived partly as tribal and not without human passions into the Christian God of holiness, is it too much to hope that we may soon remove the remnant of anthropomorphism that sticks to this conception, and rise to a more spiritual view?

The fulness of spiritual reality revealed to the perfect need not be pictured in one way or confined to a single formula. John Smith, the English Platonist, writes, "Such as men themselves are, such will God himself seem to them to be." "With the merciful Thou wilt show Thyself merciful ; with the perfect man Thou wilt show Thyself perfect ; with the pure Thou wilt show Thyself pure ; and with the perverse Thou wilt show Thyself froward." (*Psalms*, XVIII 25-26). It is idle to quarrel about the imaginative representations of God.

Modern philosophy cannot subscribe to the view that man is by nature a mass of corruption. To tell a man that he is a miserable sinner is to help him to become one and live up to the reputation that is thrust on him. It is increasingly felt that man is built to be moral, is made to be religious. In his sober moments, every man realises that love is better than hatred, mercy than cruelty, truth than untruth. Apart from the consciousness of the material side of life, each individual has a spiritual consciousness, an inner liberty (*John*, III 5-6). It is this inner consciousness born of God, the son of God in man, that we must possess and nourish, if we would attain to the perfect life which is not the death of the natural but the fullest expression of man's true being. Man degraded by sin is unnatural ; man perfected into divinity is natural.

The free spirits are those who divinise their whole being, are one with the Supreme, participate in its eternal nature, and are filled with the spirit of gladness and joy, *santi* or the peace with God (*Romans*, V 1). This divine 'peace' is not the light-heartedness which springs from a natural buoyancy of temperament, not the self-satisfaction which arises from a shallow mind or a superficial character, not the

simple pleasure of good fortune or great talents, but the pure joy of life eternal, buoyed up by the highest wisdom that God is real and victory of good is assured. The mountains and the sea, the blue sky and the brilliant stars are not for them what they are to us, struggling in the darkness below, the melancholy vision of a soul that is doubtful of its own destiny and questions nature for an answer but the certain symbol of a world invisible. These liberated spirits assure us of our potential perfection or realisable oneness with the Supreme. It is not unreasonable to suppose that these high-souled men are in a special sense the gifts of God to humanity ; not that what has been possible with them is not possible with us but that they are our elder brothers who point to us the way to the heights. To look upon them as special in any other sense is not consistent with our faith in the fatherhood of God which implies the priesthood of all believers, the equality of all men as sharers in the one great salvation.

Different manifestations emphasise in a marked though not exclusive manner, distinctive features of the divine life. The seers of the Upanishads lay great stress on the illumination of the spirit. Buddha who continues the tradition of the Upanishads insists on the need for the conversion of the soul and the importance of the ethical path. The Hebrew prophets are also preoccupied with the moral law. Jesus illustrates the principle of triumph through suffering. Mohammad pays more attention to the social aspects of life.

It is not always possible to attain perfection within the limits of a life on earth. Believers in God refuse to think that there is nothing beyond the abrupt turn in the course of life called death. To decide the merits of a case on the chances of a single lifetime, to reward those who obey supernatural direction with an eternity of happiness and to confront all others with an eternity of torment do not seem to be just to God. The goal of perfection is infinitely high and the chances are that except a few choice souls, almost all descend into their graves without achieving the highest of which they are capable. To condemn all of them as failures in a task much too exalted for ordinary human nature is hardly equitable. Large numbers of men drop off, still fighting the foes and without accepting final defeat. Growth is the law of all life, and there is no reason to believe that man alone constitutes an exception to this rule. If God is, then man's career cannot end until he achieves his divine destiny. When issues of infinite worth are at stake, the limits of man's life are only apparent. Other chances will be open to him, (See *Bhagavadgita* VI, 45 ; VII, 19). If the span of life is short, eternity is long. We need not be disheartened if we do not achieve our

purpose within three score years and ten. The human life of which we are conscious is but a fragment of a continuous development of which the beginning and the end are concealed from the vision of man, (*Bhagavadgita* II, 28).

This continuous development of man's life is governed by a law of moral conservation. All religions believe in the system of rewards and punishments. The metaphors of heaven and hell are an imaginative way of impressing on the multitudes that virtue rewards the virtuous, vice punishes the wicked by fixing them in their virtue and vice. These rewards and punishments are the decrees of God when He is viewed in an external mechanical way. When God becomes the inner spirit, the law becomes inward and organic to human nature. The sinner is saved when he becomes penitent. To save a sinner even when he sins is not what we want from or expect of God. Sin is a denial of God. It cannot change its nature. There is no pardon for it but only atonement. When the sinner repents, he is disowning his sin and therefore is drawing nearer to God.

III

To rouse the consciousness of man to the divine in him is the aim of religion. Scriptures, worship, ceremonies and sacraments are devices to help the soul in its upward ascent and provide the natural atmosphere for religious growth. Before the individuals are trained to see God face to face, they require some guidance that makes for restraint and stability. Even religions which lay the greatest stress on experience cannot dispense with symbol and sacrifice, cult and ritual. Philosophical demonstration has no meaning for large numbers of men who wish to act in life, assuming something. Those who are absorbed in the worldly pursuits of commerce and industry, politics and war are willing to accept traditional schemes of salvation and are not anxious to possess first-hand knowledge of reality. Others there are who are lacking in the ability to pursue truth single-mindedly. We have to address people in the language intelligible to them. To speak to a blind man of light and colours is to confuse him. If we are to gain admission into the minds of the weak-minded, we must accommodate the truth to their immature powers and faculties. There is nothing to be gained from discussing philosophical subtleties with children who cannot understand them. Hinduism has always declined to disturb the devotion of the unthinking, not from indifference to truth but out of tenderness of feeling (see *Bhagavadgita* IV, 11). If the devotee persists in his way of worship and prayer, he will soon realise the inadequacy of his conception of God. The soul of man may be trusted to assert its rights. The nature of the individual evolves itself

under stress of its own forces and in obedience to its own laws. If we try to work against them, they will cease to take account of us. Religious progress is a development from within and not an imposition from without. Attempts to force up the religious sense of large communities of men have proved abortive. A true religion so arranges the forms of prayer and worship as to lead its votaries upwards. These organised forms keep up the faith of the average man. Organised religion becomes unimportant, even obstructive to the strenuous soul that exerts to possess the experience. Religion when most truly itself cannot be organised.

If organised religion, which is devised to help the weaker brethren and emphasise the social character of life, is not to defeat its purpose, it should not compel any religious belief or worship. The way of God into the soul of man cannot be defined. The devout feel the presence of God within themselves and do not worry about paltry discussions of scholasticism or ascetic austerities. Men have access to God through the thunder and the burning bush of Moses, or the revealing tempest of Job, or the oracle of the old Greek sages or the demon of Socrates, or the angel Gabriel of Mohammad. We can attain glimpses of the divine through anything on earth. The way to God is vast and trackless. John the Scot, called the Erigena, observes, "There are as many unveilings of God as there are saintly souls." Hence the need for absolute toleration which all the great religious leaders of the world as distinct from the churches, which use their names, have recognised.

Though the ways to God are innumerable, they can be broadly classified into three groups answering to the logical, the emotional and the active sides of man's nature. In the ultimate state of perfection all these assert themselves and interpenetrate. The end may be reached by the illumination of the mind, the purity of the heart or the active reaching forth towards God. Those saviours or helpers of humanity who have traversed the path to God before us speak to us of the methods which have been specially helpful to them, but all of them alike insist on the faith in the unseen, love for man and indifference to the things of the world. They relate to us the peace of perfection, the joy of victory, and ask us to conquer the passions that stir in our breasts, the rising anger that sears our lips, the moral turpitudes that defile our hearts, and burn up all the dross in the fire of spirit.

A religion meant for mankind must have sufficient room for men of all varieties of temperament and grades of development. While it should not lose sight of the fundamentals, it cannot consist only of those features which are common to all religions. Such a narrowly intellectual creed tends to flabbiness even as an unintellectual one promotes

bigotry. The truth has to embody itself in a living system which can secure the affections and appeal to the imagination of men. No religion can ignore the force of custom and tradition. Many men live for a tradition and are ready to die for a dogma, while few can be found, who are willing to suffer martyrdom for the sake of syllogisms. Man is not a merely logical being. The dismissal of what is distinctive in the different religions and the retention of their common features will not give us a warm living faith which can capture the mind of man. We must have enough of what is called the atmosphere, of those customary forces, old associations and past traditions, to grip the heart of man. It may not be the inspiring life of religion, but it is necessary to keep up the flame of spirit. If we care for the flowers of religion, we cannot condemn planting and watering as empty ritual.

This is not, however, to be confused with a support of what is called traditionalism. Traditions live only through growth. They require to be tested by life. The subtleties of theologians and the speculations of philosophers are the outcome of successive efforts to preserve the essence of truth against the assaults of rationalism. The process of the testing of tradition is an unceasing one to be performed in each generation. Traditions are all important in life since they determine the way of approach to reality and colour the whole outlook of man. R. L. Nettleship observes, "In the attempt to discover truth, the expectation as to the truth with which the enquirer starts makes a great difference" (*Remains*, Vol. II, P. 285). It is therefore necessary to see to it that traditions express the truth and guide us to it. It is a welcome sign of the times that all the historical religions are attempting to rid their systems of inconsistencies and outworn forms and are thus preparing the ground for a true religious *rapprochement*. The Sufi and the Bahai movements of Islam, the Rama-krishna Mission, the Arya Samaj and the Brahma Samaj and the other revivalist movements of Hinduism, Modernism and New Theology of Christianity, the Nichiren of Buddhism and the revival of mysticism the world over are different expressions of the same spirit, which flies like hallowed fire from heart to heart, till all are purged and illumined.

Religious fanaticism is the outcome more of feeling than of thought. The fanatics, in the biting words of Swift "have just enough religion to make them hate one another, not enough to make them love one another." Almost all our religious misunderstandings are due to a false sense that we are in possession of the truth and none else, and therefore we are called upon by God to reveal the tradition we have inherited to the other nations of the world. If we think well, we shall realise how wrong it is to scoff at the faith of others and how even under the shadow of appar-

ently erroneous religions holy men have lived and died, having borne witness to the spirit of truth. The religious future of the world is hopeful since the leaders of all historical religions are slowly coming to recognise that the vital thing is to see God and the way to it matters little.

S. RADHAKRISHNAN.

POEMS OF DEVOTION.

I

TO THE MOTHER.

Mother, I am thy bondsman, tho' my heart forgets
Sometimes that *thou* dost hold me bound, and weakly frets,
Because it deems I wander from thy chosen way,
When thou dost hide beyond my present reach of day,
Giving to me some little weight of chains to bear,
A little darkness of thy age-long night to share.
Teach me, in gloom, to hear this whisper clear of thee,
"Thou art, O prisoner, a prisoner of me."

II

THE INWARD LIGHT.

Hold, brother, by the inward light,
When the world grows dim;
Ere the stars fall from the night,
Place them within.

Ah! when the sun of life is cold
As the heart of night,
And thy house is dark,
Then hold by inward light.

JEHANGIR J. VAKIL

DANTE'S DIVINE COMEDY.*

THE INFERO

THE Divine Comedy is divided into three Cantica or parts, the Inferno, the Purgatorio and the Paradiso. Each of these Cantica or parts is divided into cantos; the Inferno has thirty-four, the Purgatorio thirty-three, the Paradiso thirty-three, thus making up a hundred cantos—the square of the perfect number ten which, as I shall show, forms the basis of the symmetrical scheme of each part. Each canto contains from thirty-eight to fifty-three, *terzine*, continuous measures (or stanzas) of three normally eleven-syllabled lines knit together by the rhymes of the middle lines, the last *terzina* in each canto consisting of two couplets. Thus the rhyme scheme is—

ABA, BCB, CDC, DED, XYX, YZY.

No one before Dante had used this metre the *terza rima* for a great poem; in his hand it became “a trumpet to call the dead to judgment.”

Of the sources from which Dante drew, suffice it here to say that his great vision belongs in historical sequence to a long poetic and legendary cycle. One suggestion came from Virgil's Fourth Eclogue and the Sixth Book of the Aeneid, describing Aeneas' descent into the nether world in search of the shade of his ancestor Anchises to seek his advice upon the founding of the Roman Empire, which Dante wished to see restored. Other famous visits to the Other-World are recorded in the Voyage of St. Brandan, originally sixth century, the Vision of Alberic, twelfth century and the Descent of St. Paul into Hell, eleventh century. This last is best known perhaps in the Anglo-Norman poem of Adam de Ros. The Archangel Michael conducts St. Paul, the apostle of the nations, into Hell that he may preach the terrors thereof. The reference to St. Paul having preceded him in such a journey in Inferno, Canto II makes it probable that Dante knew this mediæval poem because Holy Scripture† tells us only how St. Paul was caught up into Paradise and heard unspeakable words which it is not possible for a man to utter.

A certain Spanish scholar Dr. M. Asin Palacios has recently written a book on “Muhammadan Eschatology in the Divine Comedy.”‡ He

* This lecture is the second of Professor Sell's Mysore University Extension Lectures on Dante's Divine Comedy.

† II Corinthians XII 4.

‡ *Vide The Moslem World*, April 1922, *vide also Theology*, June 1921.

maintains that Dante borrowed the outlines of his work from Arabic versions of *The Miraj* or legendary journey of Muhammad to the other worlds of heaven and hell—the legend being a development of the first verse of the seventeenth Sura of the Qur'an. This theory has not yet been accepted by other Dante scholars, but it certainly shows an agreement in the general plan and many points of resemblance in details, in some cases amounting to identity. Here are some of them:—

Hell.—Muhammad is guided by Gabriel, Dante is guided by Virgil. Muhammad's hell has seven divisions, Dante's hell has nine divisions. In each the grade or degree of guilt increases in proportion to the depth; imps attempt to assail Muhammad and Gabriel quells their fury; demons assault Dante whom Virgil defends. The Moslem account has a lake of fire with fiery cities of tombs on the shore; Dante also has a fiery cemetery within the walls of the city of Dis.

Purgatory.—Both have an encounter with the Siren, (*i.e.*, the happiness of this world)—women really devoid of charm seeking to allure with art and sweet addresses.

In the Moslem legend sinning but penitent souls undergo three ablutions; Dante is purified three times before he can enter the heavenly mansions. *Purgatorio I, XXXI, XXXIII.*

Paradiso.—Dante represents celestial life as a feast of light and sound, and these are two of the pictorial elements in the Moslem vision of paradise. Muhammad hears angels singing hymns of praise, sometimes based on the Qur'an, while Dante's spirits sing songs taken from the Bible. At the various stages of heaven both Dante and Muhammad receive revelations on the nature of the hierarchies and ministries of the angelic order, as well as the solution of theological and philosophical problems, according to their respective systems.

In the supreme heaven Dante sees God as a point of intense light surrounded by nine concentric circles of angels, who wheel ceaselessly around this throne. Similarly in the Muhammadan legend files or rows of angels move round the divine throne, of which God is a focus of light indescribable. Each file or row of angels corresponds to a separate hierarchy.

One version of this legend was written by a Syrian in or before the eleventh century A.D. Another version, especially close to the Italian, was by a Spanish Arab who died only twenty-five years before Dante's birth. This Arab left drawings of the other world on a circular or spherical plan which corresponds with some minuteness to the plans drawn by modern commentators to illustrate Dante's conceptions. This theory is extremely interesting. We must wait and see if Dante scholars can upset it in any way.

The Divine Comedy is a vision and an allegory. As Professor Gardner* says, "it is a vision of the world beyond the grave; it is an allegory based upon that vision, of the life and destiny of man, his need of light and guidance, his duties to the temporal and spiritual powers, to the Empire and the Church." In the famous Epistle to Can Grande della Scala of Verona, to whom he dedicated the Paradiso, Dante himself explains that the whole poem, called the Divine Comedy because it begins with adverse circumstances and yet ends happily, may be said to have many significations. He goes on to explain that in the *literal* meaning, the subject is the condition of souls after death and in the *allegorical* meaning, the subject is man being rewarded or punished by Justice according as through *the freedom of the will* he is deserving or undeserving. "There is thus the Hell, Purgatory and Paradise of departed, separated spirits—the lost and the redeemed—after death and a moral or spiritual hell, purgatory and paradise of men still in the body in this life using their free will for good or for evil; sinning, doing penance, living virtuously. The Inferno then represents the state of human ignorance and vice; the Purgatorio is the life of converted sinners striving Godwards; the Paradiso represents the ideal life of action and contemplation after innocence has been regained in the Earthly Paradise at the summit of the mountain of Purgatory. The whole poem is a mystical epos of the freedom of man's will" †; for without free will to choose evil or good there can be no moral guilt or victory. Besides these literal and allegorical meanings 'we may see in the poem the tribute of one poet to another, lovingly acknowledged as his master; and the sequel to a real love, a man's tribute to the memory of a woman loved in youth,' for at the end of his *Vita Nuova*, Dante says that he was vouchsafed a very wonderful vision 'wherein I saw things which determined me that I would say nothing further of this most blessed one (Beatrice) until such time as I could discourse more worthily concerning her . . . it is my hope that I shall yet write concerning her what hath not before been written of any woman.' Moreover the poem is the story of Dante's conversion from a morally unworthy life. At the same time Dante represents all mankind—"the type of the whole race of fallen man, called to salvation. There is thus a universal and a personal meaning to be distinguished."

The Divina Commedia was the work probably of the last seven years of Dante's life but by a poetic fiction the vision is definitely dated as having come to Dante in the spring of 1300 A.D. in the thirty-fifth year of his age, "the middle of the journey through life." It was the year,

* Dante. (*The Temple Primers*) p. 85.

† Gardner: *Dante Primer*, chap. IV.

you will remember, of the Papal Jubilee of Pope Boniface and in the summer of this year Dante was elected to the Priorate, the executive government of Florence; whence flowed so much tribulation. Thus all the events between 1300 and 1314 onwards were known to Dante. But he is extraordinarily careful to speak of all that happened after the Eastertide of 1300 as in the future, even an event so near in time as the death of his great friend Guido Cavalcanti in the winter of 1300. The accuracy of all the prophecies uttered by various speakers in the course of Dante's mystic pilgrimage is thus accounted for and lends an air of terrible certainty of retribution—an atmosphere of the inevitable and the inexorable. Even so is Dante most frequent and precise in all his indications of time; for he would impress upon us that his visionary world is no mere dreamland but a terrible reality. Dr. Moore in his book *Time-References in the Divina Commedia*, page 36, says—"One of the most characteristic and distinguishing features of Dante's poetry is its extraordinary minuteness of detail in local description. I believe that for vividness of effect he wished his readers not only to follow him step by step in the scenes which he depicted, but also hour by hour." According to Dr. Moore the action of the whole poem lasted one week, beginning with the night of Thursday, April 7, 1300, which Dante spent in the Dark Wood taking the whole of Good Friday, April 8, facing the three Wild Beasts until nightfall when Virgil and he entered Hell and all Friday night and Saturday or *Easter Eve* up to 7-30 P.M. in the Inferno proper. Like the Redeemer of mankind, Dante has been, so to speak, dead and buried, *part of three days*. The passage through Hell proper took about twenty-five hours. After passing the centre of gravity and turning round to climb arduously upwards with the pilgrims towards the mountain of Purgatory on the solitary island of the Southern Hemisphere,—a period of twenty-one hours—we find that being now in another hemisphere we must take 7-30 P.M. of Easter Eve by Jerusalem time to be 7-30 A.M. of the same Easter Eve or Saturday by Purgatory time; so that twenty-one hours of climbing through the earth on the other side of Satan occupied Easter Eve or Holy Saturday over again all day and night until Dante and Virgil emerge once more to see the blessed light of the early morning stars about 4 A.M. on *Easter Sunday*, April 10, 1300 according to the Ecclesiastical Calendar of those days.

The ascent of the mountain of Purgatory took three days and three nights. Dante was for some six hours in the Earthly Paradise on the summit of the mountain of Purgatory and at noon on Wednesday in Easter Week, April 13, began his mystical ascent through the nine material heavens to the Empyrean, which is beyond time and space. The last

point is disputed by Dr. Moore, who contends that the transition from the Earthly to the Heavenly Paradise *was not instantaneous*; but that the poet entered Paradise at daybreak even as he had entered Purgatory at daybreak and moreover the Earthly Paradise as well in contrast to the entering into Hell at nightfall. Thus Dr. Moore says that all we can say about the ascent through Paradise, where time has no meaning and is not therefore noted, where "they have no need of the sun nor of the moon, to shine in it," is that when Dante returned to earth after his Ecstatic Vision of Paradise, it would be found to be the evening of *Thursday, April 14*. Thus the whole vision would occupy precisely seven days—seven a mystical number. Dr. Moore (page 61) also points out that no indications of time in the Inferno, *i.e.*, in Hell proper, are given by reference to the sun for it was a land of darkness—a "darkness that might be felt." Dante uses references to the moon and the constellations but even then the allusions are as gloomy and as unlovely as possible and words implying light are carefully avoided. The approach of dawn is described thus: 'the fishes are quivering on the horizon.'* Contrast this with the description in Purgatorio I. 19–21.

"The fair planet which hearteneth to love (Venus) was making the whole east to laugh, veiling the fishes that were in her train."

Here we have light against light.

Contrast again the references to moon-setting in the Inferno and in the Purgatorio.

In the Inferno† the time of sunrise is indicated by reference to the setting of the moon which is described in unlovely terms as "Cain and the thorns are touching the wave beneath Seville." It is not of course described as a visible phenomenon, but as a mere note of time. In the Purgatorio, however, we have moon-setting described as a sight vividly realised.

"The waning orb of the moon regained its bed to sink again to rest"‡ What a gentle, peaceful image! Again in the Purgatorio, Dante makes us feel the sun's actual presence in his light and heat and that of the moon "walking in brightness." "Truly the light is sweet, and a pleasant thing it is for the eyes to behold the sun." So unrivalled is the poet's descriptive power that we are made to behold it with him.

The Inferno is incidentally described as the region *where the sun is silent* "dove il sol tace." Saintsbury calls this phrase "a jewel four words long" a triumphant illustration of the grand style.

* Inferno XI, 113.

† Inferno XX, 126.

‡ Purgatorio X, 15.

"The sun which speaks in the silence of noonday; which suggests its speech by moon and stars in the silence of midnight; is silent, simply and "*sans phrase*" in hell. Dante just uses these four words without comment or expansion and the very brevity and conciseness of the phrase makes us feel how a perpetual absence of sunlight made his journey through Hell, a most terrible torture to a poetic soul that was so vividly alive to all the sweet influences of nature."* Saintsbury goes on to point out that it was chiefly from his study of Dante that Matthew Arnold evolved his well-known definition of the grand style in poetry. "The grand style arises when a noble nature, poetically gifted, treats with simplicity or severity a serious subject."

Dante according to the same essayist is a supreme master of the art of terse and perfect expression of most pregnant meanings. "Consider how much is implicit in the few words describing the punishment of the Chief Priest of the Jews *Caiaphas*† who had been instrumental in causing the death of Jesus. Caiaphas is stretched upon and across the road for all the other Hypocrites to trample upon in their unceasing round.

"diesteso in croce
tanto vilmente nell'eterno esilio"
distended on the cross
So ignominiously in the eternal exile

Do we not feel the silent indignation of comparison and contrast in every word to the glorious cross of Christ?"

Dante's Cosmology.—I now turn to Dante's cosmology; his scheme of the universe.‡ Just as Milton's after him, Dante's conception of the universe was the Ptolemaic not the Copernican one. The earth was the centre; the sun was only one of the planets. Our globe is divided into two elemental hemispheres; the northern chiefly of land, the southern almost wholly of water. Jerusalem is the central point of the inhabited land or northern hemisphere. In the very centre of the bowels of the earth directly below Jerusalem and the mount of Calvary is Hell's lowest point where Lucifer is imbedded eternally in the ice. Hell is therefore in the northern Jerusalem hemisphere. The rebel Seraph had fallen directly above the southern hemisphere, till then a continent, in whose midst was Eden. He sank through the earth's crust until on reaching the centre of gravity his enormous bulk could sink no lower. The earth fled before him in his fall and was shifted to the northern

* *Vide* Saintsbury's Essay, "Dante and the Grand Style" English Association Essays III.

† *Inferno* XXIII, 125.

‡ *Vide* Maria Rossetti "A Shadow of Dante" chap. II.

hemisphere whilst the waters covered over the former land of the southern hemisphere leaving only an island uprising in the desolation.

This island came into being as follows:—The vast mass of internal substance that fled before his face was heaved up directly under Eden, amid the new waste of waters and formed the towering mountain cone of Purgatory. Hell itself had been prepared beforehand to receive Satan. The space left void by this upheaval formed the natural cave up which the poets made their way arduously and painfully to the shores of Purgatory. The eastern limit of the northern or Jerusalem hemisphere was the Ganges, the western limit the Pillars of Hercules—*i.e.*, the Straits of Gibraltar. The sphere of earth and water is enveloped by the sphere of air subject to the variations of heat and cold, rain and drought, wind and tempest. This sphere extends up the mountain of Purgatory as far as the gate of St. Peter which is the entrance of Purgatory proper. Above this sphere is that of fire or ether—secure from all atmospheric change. Beyond this highest elemental region lie the Nine Heavens, each alike a hollow revolving sphere, enclosing and enclosed. These Nine Heavens are the Heavens of the seven planets, *i.e.*, counting the sun as a planet. The heaven of the fixed stars and the heaven of the starless crystalline Primum Mobile, which, itself the most rapid of all in its revolutions, is the cause of time and change throughout creation. Beyond and outside it is the tenth heaven, the motionless boundless Empyrean, the special dwelling place of the most high God, and the eternal home of His saints.

With this general scheme in our minds we are at last ready to accompany Dante on his journey through ‘the grieving realm,’ which is now our immediate task.

Dante, as it were in slumber, had strayed into a *dark wood*,* in which tangled forest he had lost the straight way and was terrified. At daybreak on Good Friday he would fain issue therefrom. He perceived at the end of the dread valley a fair hill clothed with sunshine. He started to climb this Holy Hill of Virtue, illumined by the Sun of Reason, which only the innocent and clean-hearted could ascend. Alas! he found himself withheld and repelled by three wild beasts, a swift Leopard, a raging Lion and a greedy Wolf. It was the wolf that especially terrified him and drove him back. “Whilst I was rushing downwards, there appeared before my eyes, one who seemed hoarse from long silence.”† This deliverer was Virgil. A gracious heavenly lady, (the Divine Mercy) had seen Dante’s sore need; she recommended him to the care of Lucia,

* *The Inferno cantos I and II introductory.*

† *Inferno I, 61.*

(Illuminating Grace). Lucia claimed for him the aid of his glorified *Beatrice*, who instantly perceiving that his only hope lay in the realization of what comes after death, descended to Limbo and with tears besought Virgil to rescue him. Virgil symbolises Reason or Human Philosophy (especially moral, political philosophy); Beatrice stands for Revelation or Divine Philosophy which includes Theology. *Human Wisdom* can lead man from moral unworthiness and guide him to temporal felicity.—Therefore Virgil will guide Dante through Hell and Purgatory that he may understand the nature of sin and the need of penance. *Heavenly Wisdom*, that is, all the wisdom divinely revealed to man to bring him near to God, is needed for the contemplation of celestial things. Therefore Beatrice shall guide him through Paradise. There are some critics who see in Beatrice not a real woman but a mystically exalted ideal of womanhood. Most commentators however associate her with the lady Dante speaks of in his *Vita Nuova* who first appeared before him as a child of nine, when he was nine years old himself and of whom nine years later he became enamoured with a chivalrous love and devotion—truly a Platonic love in the best sense. He believed as essential truth that Beatrice was a specially commissioned representative of divine goodness on earth. Tradition, following Boccaccio, Dante's first biographer, has identified her, "the glorious lady of his mind" with Beatrice Portinari, daughter of a wealthy Florentine who married her to Simone dei Bardi, a rich and noble banker. She died a few years later at the age of twenty four. About Beatrice I say no more at present. The *Dark Wood* was symbolical of Dante's own unworthy life and the corruption of human society: the three beasts, the leopard, the lion and the wolf stand for luxury, pride and avarice. If we take a political interpretation of it we shall see in the *tangled forest* the moral and political condition of Italy and in the three beasts the three great Guelph powers that opposed the Empire—the republic of Florence (the leopard), the royal house of France (the lion), and the secular power of the Papacy (the wolf). Virgil tells Dante that he must take another road; for the power of the wolf will endure until the veltro or greyhound comes to deliver Italy and hunt the wolf to Hell, "from which envy first set her loose." Who was this promised deliverer, this greyhound? Probably some future emperor who should restore the imperial power, make Roman law obeyed throughout Italy, extirpate greed, establish universal peace and reform the world. There may be, also, a remote reference to the second coming of Christ. Less probably does it refer to some definite person such as Can Grande della Scala, Lord of Verona.* Dante's sense of unworthiness made him shrink from entering upon "the other road" the pilgrimage through Hell,

* *Vide Gardner: Dante Primer.*

Purgatory and Paradise but, encouraged by Virgil's account of his commission by Beatrice, Dante follows his guide and master upon "the arduous and savage way." At nightfall on Good Friday, Dante reads the terrible inscription over Hell Gate:*

"Leave off all hope, all ye that enter in "

Lasciate ogni speranza, voi ch'entrate.

"Through me you pass into the grieving realm

Through me you pass into the eternal grief

Through me you pass among the kin that's lost "

"Per me si va nella città dolente

Per me si va nell' eterno dolore

Per me si va tra la perduta gente."

Through his tears, Dante sees on the Dark Plain of Ante-Hell which goes round the confines, a vast multitude of spirits running naked behind a flag, symbol of their wavering spirit, in confusion, urged on by furious wasps and hornets. These are they who through selfishness and cowardice remained neutral in the struggle between good and evil, mingled with the angels who had kept neutral between God and Lucifer. Among this multitude, he saw *the shadow of him who from cowardice made the great refusal*. This was Pope Celestine V, elected Pope in 1294 at the age of eighty, who resigned five months later in favour of Boniface VIII whom Dante detested. Further on towards the centre, flowing round the brim of Hell is *Acheron*—River of Sorrow. Across this the spirits of the damned are ferried by Charon. Dante himself was borne across in a swoon from which he is roused by a heavy thunder, and finds himself on the brink of the abyss "which gathers thunder of endless wailings."

Here we may appropriately pause to consider the structure of Hell and the moral scheme of the Inferno. The chart I have here will make it plain. Imagine a cone-shaped pit inverted, a vast funnel with its apex reaching to earth's centre. It is divided into nine concentric circles—the lower ones separated by immense precipices.

These concentric circles decrease in circumference and in like measure the suffering grows more intense and horrible. Mr. Philip Wicksteed, in a note at the end of the "*Temple Classics*" *Inferno*, says: "All three portions of the poem are built upon the number schemes of 3 7, 9, 10. The primary division into 3 being raised by sub-division to 7, then by two somewhat unlike additions to 9 and lastly by a number of a markedly different kind to 10 In Dante's Hell the primary division of reprehensible actions is based upon Aristotle (I) *Incontinence*, i.e., all wrong actions due to inadequate control of

natural appetites, (II) *Brutishness or Bestiality* which is characteristic of morbid states in which what is naturally repulsive becomes attractive and (III) *Malice or Vice* which consists of those evil actions which involve the abuse of the specifically human attribute of reason.

The primary threefold division is then—

Incontinence	Violence or Brutishness	Fraud or Malice
Sub-divided into 4 (carnality, gluttony, avarice and anger.)		Sub-divided into 2 (simple fraud and treachery.)

So we get 7.

We must add *unbelief*—the heathen and the unbaptized [circle (i)], and *misbelief*—the heretics [circle (vi)].

These two were naturally outside Aristotle's scheme but according to mediæval catholicism deserved a place in Hell.

Lastly we must add the circle outside Acheron—the Ante-Hell of the neutral or Trimmers, rejected alike by Heaven and Hell and so we reach our tenfold division.

There is, however, a further sub-division peculiar to the Inferno; for circles VII, VIII and IX are sub-divided respectively into 3, 10 and 4, so that the locally distinct abiding places of unblest souls mount in all to 24."

In the *Upper Hell* is described the punishment of the sins that proceed from the irrational part of the soul, according to Aristotle's doctrine of the tripartite division of the soul into the vegetative soul, the sensitive soul and the rational soul.

The *Nether or Lower Hell*, wherein are punished brutishness and malice, is the terrible city of Dis, the true kingdom of Lucifer, fortified with towers and a wall and guarded by demons and furies.

There was, in the middle ages, a familiar classification of sins into seven—the Seven Deadly or Capital Sins. Perhaps the upper Hell of *Incontinence* contains five of them: Luxury, Gluttony, Avarice, Sloth and Anger and in the three circles of the city of Dis we are to see the visible effects of Envy and Pride, the sins proper to devils according to Saint Thomas Aquinas. It was St. Thomas again who taught that heresy or infidelity, if reduced to one of the capital sins, must be looked upon as arising either from pride or from cupidity or some other illusion of the flesh. Hence one reason why Dante places the punishment of heresy in the intermediate position of the sixth circle.

“The first circle that girds the abyss”
(nel primo cerchio che l'abisso cinge)

is called Limbo* where live unbaptised children and the virtuous heathen; they have no hope yet they live in desire. The air trembles with their sighs. Without physical torment they suffer only the pain of loss. Virgil tells Dante that Christ in his triumphal descent into Hades liberated the holy souls of God's chosen people, the Jews, who had passed away from life having faith in Christ to come. Amid the gloom shone forth one luminous spot. This was the noble castle of Fame, having seven walls and seven gates typifying the seven virtues that guard Reason and Will and the seven sciences that give entrance to Knowledge. Around it flowed a fair rivulet; within it was a meadow of fresh verdure. On this meadow were people with eyes slow and grave, of great authority in their appearance; "they spoke seldom, and with mild voices."† This castle is the utmost point of attainment for non-believers—here abode the heroes and heroines, the great ones of their active life; here too, in a more exalted place were their poets and sages, the great ones of their contemplative life. Dante and Virgil are met by a group of four great shadows "with aspect neither sad nor joyful." These were the "lords of highest song," Homer, Horace, Ovid and Lucan who greet the returning Virgil, the shade that was departed. They made Dante one of their number with friendly salutation and held prolonged converse together. Among the philosophers Dante saw Aristotle, "the master of those that know" and nearest to him Socrates and Plato. Other famous philosophers were Avicenna of Persia who wrote philosophy in Arabic in the eleventh century and whose works were burnt by the orthodox Muslims; and Averrhoes of Spain who made the great comment on Aristotle in the twelfth century. He also suffered for his speculations being driven out into exile by his orthodox brethren. The bright light was due to the genius of the inhabitants of this castle which in a measure atoned for their unbaptised condition. It was here that Virgil had his abiding place.

Out of Limbo the two poets descend into the darkness of the second circle or proper commencement of Hell with Minos, the Infernal Judge, at its entrance. In Greek story Minos, king of Crete, had been renowned for his justice. Here he sits horrific and grins and passes judgment on each soul. By the number of times he twists his tail around him the lost souls know to which circle they are condemned and thither is each instantly whirled down. Virgil tells him not to hinder "their fated going, thus was it willed there, where what is willed, is done." In this circle are punished the lascivious, who subjected their reason to lust.

* Canto IV, Circle I, Limbo.

† Inferno IV 112—115.

They are whirled about by stormy winds and as, ever and anon, they are tossed near to the brink of the fearful chasm, they redouble their shrieks and moanings. Dante compared them to starlings borne along by their wings in the cold season in large and crowded troops and to the cranes that go chanting their lays, making a long streak of themselves in the air. It is rare in medieval poetry to find such simple direct observation of nature. This is one of the signs of Dante's pre-eminence as a poet.

I must take this opportunity to bring to your notice another bird simile used by Dante, who, needless to remark, is most masterly in metaphor and simile,—in the twenty-third Canto of the *Paradiso* to describe the attitude and look of Beatrice at that moment.

"As the bird amidst the loved foliage who hath brooded on the nest of her sweet offspring through the night which hideth things from us, who, to look upon their longed-for aspect and to find the food wherewith to feed them, wherein her heavy toils are pleasant to her, foreruns the time, upon the open spray and with glowing love awaits the sun, fixedly gazing for the dawn to rise; so was my lady standing, erect and eager turned toward the region beneath which the sun sheweth least speed.*

Dante can make a simple statement of fact into great poetry. Even in its English prose dress you can see the poetic value; how much more so in the musical Italian. The *Divine Comedy* is supreme in rhythmic beauty. Dante plays wonderful music on his rich eleven syllabled lines, —music as of an organ "calling forth now gentleness, now majesty, now terror, now storm, now peace."† Dante again is supreme in finality of phrase; in the power of drawing to his concepts "just the true words, assembled so within the rhythm that they ring perfectly in memory." As Chaucer (Monk's tale) said of him "not one word will he fail." For example, let me quote, the words which Dante spoke in answer to Virgil after Francesca da Rimini had told her sad story in this circle of the lascivious.

"When I answered, I began: Ah me! What sweet thoughts, what longing led them to the woful pass!"

Quando risposi, comminciai: O lasso,
quanti dolci pensier, quanto disio
meno' costoro al doloroso passo!‡

Again—the answer of Francesca to Dante's question.

"And she to me: There is no greater pain than to recall a happy time in wretchedness; and this thy teacher knows."

* As translated in 'The Temple Classics' *Paradiso* (Dent and Sons).

† Wilkins *Dante: Poet and Apostle* (Chicago University Press).

‡ *Inferno* V, 112—115.

Ed ella a me : Nessun maggior dolore,
che ricordarsi del tempo felice
nella miseria; e cio sa il tuo dottore.*

Take again—the wonderful stanzas describing the sunset of the first day in Purgatory.

“ ‘Twas now the hour that turns back the desire of those who sail the seas and melts their heart, that day when they have said to their sweet friends adieu,

and that pierces the new pilgrim with love, if from afar he hears the chimes which seem to mourn for the dying day—”

Era già l’ ora che volge il disio
ai naviganti, e intenerisce il core
lo di ch’ han detto ai dolci amici addio ;
E che lo nuovo peregrin d’amore
punge, se ode squilla di lontano ;
che paia il giorno pianger che si more:†

Never were truer words written than those of Dante in the Convivio.

“ Nothing that is harmonized by the bond of rhythm can be transferred from its own tongue into another without shattering all its sweet-ness and harmony.”‡

From this pardonable digression into Dante’s poetic quality let us now return to our poets as they stood in the stormy whirlwinds of the circle of the Lascivious.

In a lull in the storm Francesca da Rimini poured forth to Dante, her piteous story in words of unspeakable pathos. Francesca was a kinswoman of Guido da Polenta, Lord of Ravenna, one of Dante’s best friends. Her sad story was briefly this. Her father wished, for political reasons, to marry her to the deformed and ugly Gianciotto Malatesta, son of the Lord of Rimini. His brother Paolo was sent to negotiate the marriage and apparently went through the ceremony of marriage with Francesca as proxy for his brother. Francesca did not learn until later that he was only acting as a proxy for her real husband.

Let Francesca tell her own story of her guilty love for Paolo. “ One day, for pastime, we read of Lancelot, how love constrained him; we were alone and without all suspicion. Several times that reading urged our eyes to meet and changed the colour of our faces, but one moment alone it was that overcame us. When we read how the fond smile was kissed by such a lover, he, who shall never be divided from me, kissed

* Inferno V, 121—123.

† Purgatorio VIII, 1—6.

‡ These translations are taken from *The Temple Classics editions*.

my mouth all trembling; the book and he who wrote it, was a Galeotto (a pandar); that day we read in it no farther." Gianciotto surprised them together and stabbed them both to death in a fit of jealousy. In Caina the belt of ice in the ninth circle shall Gianciotto, slayer of his kindred, be found. In the Arthurian story the guilty love of Queen Guinivere for Lancelot has much the same palliation. Lancelot had been sent to fetch the bride who during their long and pleasant journey to Camelot had fallen in love with the loveable human Lancelot. King Arthur she found, not, it is true, ugly and repulsive, but all too faultily faultless, too icily perfect.

This episode furnishes a splendid example of Dante's wisdom. Wherein, one might ask with the French romantic poet Alfred de Musset, lies the punishment? What makes these lovers so wretched in the Inferno? What more could true lovers demand than to be for ever in one another's arms? That is just what their passion, if left to speak for itself, would have chosen. How is it then that hell's torture can arise from having exactly what one desires so passionately? Dante's answer is that such a view is out of true relation to the whole of human life and human nature. To abandon one's self to love which is nothing but love is hell. The illicit love of Paolo and Francesca was "condemned to be mere possession in the dark—without an environment, without a future. It is love among the ruins." For true happiness, love must mean more than mere possession; it demands a varied life full of events, activities, ideals, opportunities for unselfish renunciations wherein the lovers may show the sincerity and the nobility of their love.*

We shall see later how some of the sins punished in the eighth circle, the circle of malice, are apparently identical with some sins of incontinence. There is a great moral difference, however, between sins of passion into which the sinners fall as it were by surprise without any intention of malicious fraud and wilful sins of deliberate depravity. Over other examples of carnal sinners, Semiramis, Cleopatra, Helen-Achilles, Paris, Tristan, we must pass in silence. Overwhelmed by pity at Francesca's sad story, Dante fell in a swoon. On recovering his senses, he found himself amidst new torments. Virgil had carried him down in his swoon into the *Third Circle*, the place appointed for epicures and gluttons who set their hearts upon the lowest kind of sensual gratification. An unvarying eternal storm of putrid rain and hail and snow pours down upon them, as they lie all prostrate on the ground with the three headed monster *Cerberus* barking over them and rending them,

* *Vide Santayana "Three Philosophical Poets,"* page 119.

All these hellish tortures were merely the effect of the sins and the sinners' own creation. What other was the snarling Minos but a type of the sinners' disordered and terrified conception of Justice? A few handfuls of earth thrown into his jaws quieted Cerberus and Dante was able to learn from the shade of a Florentine, nicknamed Ciacco or Pig, a brief account of faction fights about to come in Florence—a résumé, as it were, of the political history of Florence in the immediate future the years 1300-1302. What is past and what is future is known to the damned but not what is present—hence their desire to learn from Dante, the actual state of things.

On the brink of the fourth circle, Plutus, ancient God of riches, swelled with rage and astonishment. Virgil's sharp reproof made him collapse, "like sails that fall entangled when the mast breaks." Here were the *Avaricious* and the *Prodigal*, the misers and the spendthrifts—each rolling, with loud howlings, immense stones, some round one half-circle, the others round the other half-circle. They met, they clashed, they cursed and turning round rolled their great weights back only to meet again once more on the other side. Virgil tells him that here were many priests and popes and cardinals but it were vain to hope to recognize any, for "their undiscerning life, which made them sordid, now makes them too obscure for any recognition."* Time pressed, for it was now past midnight of Friday. The poets descended into the next circle, not by steps but by the slope down which the river Styx is flowing till it settles into the stagnant pool of the fifth circle that serves for a moat to the fortified city of Dis.

In this gloomy marsh Dante sees the wrathful tear each other to pieces with their teeth, smiting each other's naked slime-covered bodies not with hands only but with head and chest and feet.† The bubbles that he sees on the surface were made by the sobs of those buried in the black mud at the bottom. These were the melancholy—the gloomy-sluggish gurgling in their throats a dismal chant. There is some doubt as to the true meaning of the name for these latter, *accidiosi*. Of what kind of sloth were they guilty? How is sloth or melancholy opposed to wrathfulness? Perhaps it is a sulky or sullen anger as contrasted with violent anger. Perhaps *accidia* means a sadness or melancholy of the mind which weighs down the spirit so that well-doing is irksome. The opposite of anger is not meekness in the sense of unresisting gentleness which endures all evil. It is rather the righteous indignation which repels evil. Following Aristotle, Dante often defines virtue as the mean

* *Inferno* VII, 52—55.

† *Inferno* VII, 112.

between two extremes. Brunetto Latini, whom we shall shortly meet, laid it down that "he that is truly meek is angry whereat he ought and with whom and as much as and when and where he ought to be." The angry man passes the mean on the side of excess, the wrathless man passes the mean on the side of defeat. These wretched souls in the mud were probably those who lacked in life a measured resentment against evil where and when it was needed. After going a long way round the edge of this loathsome marsh under the wall of rock, the poets came at last to the foot of a high tower, an outwork of the city of Dis. They observed two flame-signals rise from its summit, answered by another at a great distance; and then they saw the demon pilot *Phlegyas*, coming with angry rapidity in his boat, exulting in his supposed prey. He it was who in his lifetime had vengefully burnt down the temple of Apollo, and thus forms the appropriate connecting link between the Wrathful in the marsh of Styx and the Impious within the city of Dis.

In his boat they sail across the marsh and on their way a spirit, all covered with mud, accosts Dante. It was *Filippo Argenti* of the Adimari family in Florence, a family Dante disliked. In life, he had been noted for ostentation, arrogance and brutal anger. "How many up there now think themselves great kings, that shall lie here like swine in the mire, leaving behind them horrible reproaches."*

To Dante's satisfaction, he saw the muddy people make such rending of him that "even now I praise and thank God for it." Sounds of lamentation reach their ears, and looking forward through the grim vapour Dante discerns the fiery pinnacles and turrets of the dread city of Lucifer. Phlegyas lands them at the gates but the host of rebel fallen angels refuse them admittance. Virgil had gone forward to parley with the demons alone but they had all rushed within and shut to the gates. The poets cannot enter the city of Dis in their own strength. And now a new danger threatened. Upon the turrets the three Furies suddenly appear—"stained with blood, they had the limbs and attitude of women, and were girt with greenest hydras—on their heads, instead of hair, were writhing serpents." They cried aloud. "Let Medusa come that we may change him into stone." Virgil bade Dante turn round and close his eyes. Over them he placed his own hands for greater safety.

"O ye, who have sane intellects, mark the doctrine, which conceals itself beneath the veil of the strange verses."† The Furies were symbols of bad conscience, of hopeless remorse, Medusa, the symbol of the despair that makes repentance impossible by hardening the heart as it were to

* *Inferno* VIII, 49.

† *Inferno* IX, 61.

stone. Reason (Virgil) may do much to obviate these evil influences but Divine Aid is necessary to dispel them altogether.

How that Divine Aid came to them and opened the gates of the city and of their further pilgrimage through that part of it that lay within the *Lower Hell* we shall learn in a further discourse.

F. R. SELL.

VARYING MOODS.

I

SCEPTIC.

When with hands in prayer joined,
Father, I kneel at morn,
Why do I wish with vain regret
That I was never born?

When with fruits and flowers I go,
Father, to thy shrine,
Why do I doubt with shame and fear
If I am ever divine?

When for worship I come to thee,
Father, at fall of day,
Why do I think of the terrible Death
Who soon must take me away?

II

OWNER.

My heart is in the desert,
My heart is not with me,
My heart is on the mountain top,
In flower and in tree.

My heart flows with the river,
My heart blows with the breeze,
Wherever my heart may wandering be,
My heart is wholly His.

N. MADHAVA RAO,

NEW LIGHT ON THE BEGINNINGS OF VIJAYANAGAR.

THE enormous mass of new material brought to light in recent years by the parties in search of manuscripts, and by the archaeological departments of Madras and Mysore, has rendered it necessary to re-examine and revise many of the accepted views and popular notions on matters connected with the history of Vijayanagar.

First, in regard to the foundation of Vijayanagar and the origin of the Empire, Sewell gives "a whole bundle of tales and traditions," and adds that there are many others. Light is thrown on the historicity of these traditions by a newly discovered work the *Rajakala Nirnaya* of Vidyāranya, a disciple of Vidyā Sankara, only a single copy of which exists in the Government Oriental Manuscripts Library of Madras* and which has not yet been used by historical students. It contains an account of the origin of the Empire as "narrated in secrecy" by Vidyāranya to his monk-brother, Bhārati Krishna. The city of Vijayanagar was once famous in history, but had of late years suffered a decline. The Sage Vidyātīrtha had decided to revive its greatness and had taken up his residence at mount Matangaparvata. Then there went to him the brothers Mādhava and Sāyana who had no children, to implore of the sage the blessing of progeny. Meanwhile arrived a-hunting there also the brothers Harihara and Bukka who belonged to the Kuru Vamsa. They had been treasurer and secretary to Rāja Vira Rudra of Warrangal. When the Suratrāna (Sultan of Delhi) defeated Rudra and took him captive, they served as treasurers under Rāja Rāmanātha. But this Rājā too was slain some time later, and the two brothers were carried off among others by the Sultan's troops. They were let off later and took up their abode at Hastikōnā (Anegondi) on the Tungabhadrā. Apparently after meeting Vidyātīrtha they became devotees of Virūpāksha the God at Hampi. Harihara reigned for ten years. Here follows a pious interpolation by a later hand to the effect that thirteen kings reigned in all, and the duration of their reigns is given.† A prose sentence to this effect "The meaning is that these kings were to reign in the future"—betrays the work of a later hand in regard to the time limits given of these kings. But the account of the *rise* of Vijayanagar given here is by a contemporary, Mādhavācharya himself, surnamed Vidyāranya. It is borne out by and enables us to understand the references, till now

* Noticed in the Descriptive Catalogue of Sans. MSS. Vol. XXI No. 12772.

† As in the *Chenna Basava Puranam*.

obscure, in the Muhammadan chronicles, the narrative of Nuniz and in inscriptions.

I

Harihara and Bukka had been at first in the service of Vira Rudra of Warrangal. Vira Rudra, the 'Ludder Deo' of Barani, was not only a staunch Hindu but a patron of learning. The poems and commentaries of Mallinātha were encouraged by this king who "covered the poet with a shower of gold," as Mallinātha's descendant Narāyana mentions in the recently discovered manuscript of *Padayojana** One of his officers had the Telugu Mārkandeya Purāna dedicated to him by Mārana, a pupil of Tikkanna Somayāji. Another patronised the Bhāskara Rāmāyanamu†. The king himself was the patron of the Pratāparudriya. He is referred to in tender terms by the Jaina writer Appayārya who wrote his *Jinendra kalyanabhyudaya* treating of the mode of Jina worship at Warrangal (Ekasilānagara) in A.D. 1319. The rulers of Vijayanagar only improved on the example thus set, in their patronage of Sanskrit and Telugu literature.

Rudra had been regarded as the bulwark of Hinduism on the north to beat off the advancing waves of Islamite invasions. His fortress at Warrangal was regarded as impregnable, according to the description of Amir Khusrū : "The wall of Arangal was made of mud, but so strong that a spear of steel could not pierce it ; and if a ball from a western catapult were to strike against it, it would rebound like a nut which children play with." Here Rudra stood Mālik Kāfür‡ at bay, and here all the fighting men of the country had assembled after laying waste the country around. Barani describes the mud fort as stronger than the inner stone fortress. But the army of Islam escalated the mud fort and closely invested the stone fort. When all hope of defence was gone Rudra Dēva yielded his treasures to save his religion (1310 A.D.)§. The fertile south lulled itself into security as Mālik Kāfür retired thence. Rudra's attempts to rally the forces of Hinduism against Islam are probably to be traced in the progress of his general Muppidi Nāyaka through Kānchipura as far as Trichinopoly, as recorded in inscriptions. But Rudra Dēva's efforts to free himself from vassalage to the Muhammadans brought on him the wrath of the Delhi Sultan. Ulugh Khan invaded Warrangal in 1321, refused the terms of submission offered by Rudra Dēva, but had to retreat to De lhi through the failure of his attempted revolt against his father

* Madras Oriental MSS. Library No 12291.

† These officers figure in inscriptions See Madras Ep. Rep. 1917 p. 127.

‡ Elliot : History of India, Vol. III, p. 80.

§ Barani in Elliot's History, Vol. III, P. 202.

When he returned again after four months, the Raja, his family and treasures fell into his hands* (1321). The name of Warrangal was changed to Sultanpur and the Muhammadans occupied it. Harihara and Bukka fled from the place and took service under the Rāja of Kampili, whose name Rāmanātha is now supplied by Vidyāranya.†

Rāmanātha of Kampili had "his territories situated among inaccessible mountains" and "was one of the chief princes of the infidels." When Bahā-ad-din Gurshasp, the first cousin of Muhammad Tughluq refused him allegiance and was defeated by the Emperor's troops, he fled for protection finally to this Rāja of Kampili, from his fief at Sāgar about 7 miles north of Sholapur in the Deccan. He had great influence in the country and, Firishta says, his rebellion assumed serious dimensions, and spread throughout the Deccan. What followed may be reproduced in the words of Ibn Batuta:

"When Bahā-ad-din made his escape to this prince, he was pursued by the soldiers of the Sultan of India, who surrounded the Rai's territories. The infidel saw his danger, for his stores of grain were exhausted, and his great fear was that the enemy would carry off his person by force; so he said to Bahā-ad-din, 'thou seest how we are situated. I am resolved to die with my family, and with all who will imitate me. Go to (the prince of Dwārasamudra) and stay with him; he will defend thee.' He sent some one to conduct him thither. Then he commanded a great fire to be prepared and lighted. Then he burned his furniture, and said to his wives and daughters, 'I am going to die, and such of you as prefer it, do the same.' Then it was seen that each one of these women washed herself, rubbed her body with sandalwood, kissed the ground before the Rai of Kambila, and threw herself upon the pile. All perished. The wives of his nobles, ministers and chief men imitated them and other women also did the same.

"The Rai in his turn, washed, rubbed himself with sandal, and took his arms, but did not put on his breast plate. Those of his men who resolved to die with him followed his example. They sallied forth to meet the troops of the Sultan and fought till every one of them fell dead. The town was taken, its inhabitants were made prisoners and carried to the Sultan, who made them all mussulmans.‡"

This is the account Ibn Batuta gives of the high sense of honour and hospitality of the Rāja of Kampili, Nuniz gives further details. When the Sultan's troops invaded the Rāja's dominions, "he fled for shelter to a fortress called Crynamata which was by the bank of the river

* *Ibid.* P. 233.

† The *Raya Paddhati* quoted by Buchanan (*Travels* pp. 278-291) also has the name Kumara Ramanatha of Kampili.

‡ *Ibid.* p. 614.

and which contained much provision and water. He took five thousand men with him, *along with their property*. The rest of the men, 45,000 strong, betook themselves to another fortress. Beset on all sides by the Muhammadans, the Rāja sent away Bahā-ad-din to Dwārasamudra, and prepared to make an end of all his family and men. The women and children burnt themselves, and the men died fighting bravely. Only six old men were left, and they were nobles of the Rāja's court."* According to Ibn Batuta, however, there were eleven sons of the king who were promptly converted to Islam. It is probable that "sons of the king" is a mistake for "noblemen." Whether their number was six or eleven, Harihara and Bukka were among the survivors.

The king of Kampili, who yielded his life rather than live in disgrace, was deified as usual after death. Nuniz says,† "amongst themselves they worship this king as a saint." This statement has been a puzzle till now. And so has been the identification of the fortress Crynamata where the bulk of the royal property was secured. Though Nuniz's narrative is not as clear as one could wish, it leaves this circumstance beyond the shadow of a doubt. The king "with their property" took refuge in the fortress (p. 293). They gave their lives "to the enemy who had deprived them of all their *lands*" (p. 294). "They were questioned by the king concerning the treasures of the king of Besnaga, and *such riches as were buried in the vaults* of the fortress were delivered up to him" (p. 295)—whether the fortress in question was Kampili or Anegondi.

Bearing in mind the topography of Crynamata as described by Nuniz and the claim of the abbots of Sringeri to be regarded as the founders of the prosperity of Vijayanagar, I see no objection to the identification of Crynamata with Srīga Matha. Sewell himself considered it possible that the first syllable represents the word *Sri*. Srīga Matha is on the rocky heights above the Tungabhadra. The head of the Sringeri Matha at the time was Vidyātīrtha according to epigraphical evidence as well as the traditions of the Matha. And near the Matha are a number of *Samadhis* or tombs of canonised men. In his account of Sringeri Mr. Narasimhachari says:—"The Bhārati-Rāmanātha and Vidyāviswēswara evidently represent two of the Samādhi temples situated near the Vidyā Sankara temple; and as their period is earlier than 1386, it would be interesting to know the tombs of which earlier Swamis they probably represent." The name Rāmanātha does not figure in the *guruparampara* of the Matha or in any of the inscriptions so far known. It is likely that this is the temple referred to by Nuniz? If so it was put up in honour

* *Ibid. P. 615.*

† *Sewell: Forgotten Empire. P. 295.*

of the canonised Rāmanātha, the last of the Rajas of Kampili. Epigraphical evidence would tally with this supposition. There is only one record of a Vira Kampili Dēva at Hampi. It is found on a stone pillar in the pagoda of Prasanna Virūpāksha on the hill Hemakūta. Prasanna Virūpāksha is known as Vriddha Pampāpati and his shrine was probably older than that of Virūpāksha the Pampāpati. The record is dated in the cyclic year Saumya which would correspond to the year S. 1231 (1309 A.D.) Perhaps the name of the canonised Rāmanātha accounts for the Sri Rāmanātha temple,* and for the signature *Sri Ramanatha* in the copperplate grant of Bhūpati Odeyar.†

All accounts agree that on the fall of Rāmanātha Harihara and Bukka were, among others, taken prisoners by the Muhammadan invaders. The *Rajakala Nirnaya* merely says that they were protected and identified by the warriors who had been taken captive by the Sultan. (*Suratranz bhatair nitaih viraih rakshana lakshitau*). Nuniz says that the Sultan of Delhi in Council decided to restore the kingdom to those nearest of kin to the late Royal house, but found none such available, which contradicts Ibn Batuta's story that there were eleven sons of the king captured and converted. Then they chose Harihara "who was not related in blood to the kings, but only was the principal judge" and minister of the late king. "At once the six captives were released and set at liberty, and many kindnesses and honours were done them and the governor was raised to be king and the treasurer to be governor; and he took from them oaths and pledges of their fealty as vassals; and they were at once despatched and sent to their lands with a large following to defend them from any one who should desire to do them an injury."

This account has till now been accepted in spite of the obvious difficulties in the way. None of the Muhammadan writers claims credit for the gift of the kingdom by Muhammad Tughluq; not even his contemporary Barani who may be looked on as the literary whitewasher of the Tughluq's administration. Nor is any criticism found directed against the disloyalty and ingratitude of Harihara and Bukka who at least in later years were quite independent and adopted a distinctly antimussalman attitude. The apparent silence of the Muhammadan chroniclers on this transaction of no mean importance ought to give one seriously to think. For myself, I would discover a reference to this matter in a misunderstood and misapplied passage in Barani. In connection with the revolt of Warrangal, Barani says:—"About the same time one of the relations of Kanyā Naick whom the Sultan had sent to

* E.C. VI Md. 25.

† E.C. XI Mm. 31.

Kambala apostised from Islam and stirred up a revolt. The land of Kambala also was thus lost, and fell into the hands of the Hindus."*

In regard to the word 'Kambala' in this passage, Elliot says: "Kampala is the name given in the print, but both MSS. read 'Kambala' making it identical with the place mentioned directly afterwards. I have not been able to discover the place. The author probably took the name to be identical with that of Kampila in the Doab." But it is impossible to identify this place with that in Farukhābād. In the first place that was not the seat of a kingdom; secondly in the context Kambala is placed between Warrangal and Deogiri. I have no hesitation in identifying Kambala or Kampale with Kampili. As regards the spelling of the name, I may cite that adopted by Ibn Batuta for Kampili. It Kambila, which agrees with the reading of the MSS. as noted by Elliot.† And the chronology of the event tallies with this view: it was the year of the Delhi famine (1335-6). It is clear that Muhammad Tughluq left Kampili to itself and was, considering the circumstances of the time, in no mood to send an army to set up the brothers on the throne.

When they were released by the Muhammadans Harihara and Bukka set up at Anagondi (Hāsti Kōnapura) which had been included in Kuntaladēsam for several years past. A Sanskrit inscription in Vijayanagar speaks of it as belonging to Kuntala Vishaya‡ in the Karnātaka country. Another at Holal in the Bellary District mentions Nolambavādi in Kuntaladēsa in 1178 A.D. Another record in the pagoda of Durga north of the Virūpāksha temple, records a grant in S. 1121 by Immadi Rājamalla, Prince of Kuntaladēsam. And we know that the Hoysala kings maintained their hold on Vijayanagar as late as 1339 when Vira Ballāla III had Vijaya Virūpākshapura as his nelevidu.§ (S. 1261 Bahudhānya). But soon after we find Harihara styled as Chatussamudrādhipati|| ruling his Prithvīrājyam in Vikrama 1263 which is evidently a mistake for Saka 1263 (A.D. 1340).

The Hoysalas figure in inscriptions for a few years more, but their activities were rather in the Tamil country than in the Kannada. Harihara and Bukka were apparently on good terms with them. This relationship is revealed in an inscription, which unfortunately has many lacunae, at Mudgere,¶ which mentions also a Rāmanāthadēva, and in a copper plate grant** which says that "When Bukka I became king the prosperity of Karnāta kingdom became firmly established."

* Elliot, Vol. III, pp. 245, 246.

† Ibid p 615.

‡ Madras Ep. Rep. No. 17 of 1889.

§ E.C. IX Hoskote 43.

|| Ibid Nelamangala, 19.

¶ E.C. VI Md. 25.

** Madras Ep. Rep. A2 of 1914.

II

When Harihara and Bukka were at Anegondi they paid homage to Vidyātīrtha who was at Matanga Parvata, and he helped in the foundation of the empire and of the imperial city. The evidence of Vidyāranya to this effect is against the popular notion as well as the tradition in the Sringeri Matha and the inscriptions of the second Vijayanagar dynasty in the sixteenth century. But it is supported by the copper plate grants in existence at Sringeri, from Harihara I, Bukka I and Harihara II. The matter is important and deserves to be discussed in detail.

The general belief is that Vidyāranya *alias* Mādhava revived the city of Vijayanagar and established the first dynasty. Nuniz calls him Vydiajuna, which Sewell* considers as representing Vidyārjuna, and says he had bidden Harihara Deo Rao to construct the city. Sewell's own view is: "We shall, however, in all probability never know whether this hermit, whose actual existence at the time is attested by every tradition regarding the origin of Vijayanagar, was really the great Mādhava or another less celebrated sage on whom by a confusion of ideas his name has been foisted." But the note of warning thus sounded by Sewell has been lost upon recent writers, one of whom actually places Vidyāranya in 1302-87 and assumes that he lived far later in the times of Bhūpati for whom Chaundappa wrote the *Prayogaratnamālā*, we are told, "at the request of Vidyāranya!" † This writer assumes that Vidyāranya "must have been a ripe scholar of great reputation at the beginning of the empire of Vijayanagar." His sole authority for these statements is a Sloka of the *Devyaparādhakshamapana Stotra* which he attributes to Vidyāranya contrary to the authority of the published texts and of tradition. Apart from the authorship of the sloka in question there is positive epigraphical evidence that not Vidyāranya but his guru Vidyātīrtha *alias* Vidyā Sankara was the head of the Matha at Sringeri at the time of the foundation of the kingdom. Grants were made to Vidyātīrtha by Harihara I in 1346 A.D.,‡ and by Bukka in 1356 A.D. Another record§ of Sringeri clearly mentions Vidyāranya as under the orders of Vidyātīrtha who granted him permission to return to Bukka's court from Benares. The journey of Vidyāranya to Benares is also mentioned in the *Rajakala nirnaya*. Again the Bāchahalli grant of Harihara II, recording grant of land to Sāyanachārya the famous commentator on the Vedas, and to others, describes Bukka as "the sole lord of the earth through the grace of Vidyātīrtha muni." This grant

* Forg. Emp. p. 19 footnote 2.

† S. K. Iyengar. *Sources of Vijayanagar History*. p. 3.

‡ E. C. VI Sr. I.

§ Mys. Arch. Rep. 1916, pp. 56, 57.

is dated Saka 1298 (A.D. 1376) the year of Bukka's death.* Lastly, in a grant of A.D. 1386 which settles territory on four Vedic scholars who are described as *pravartakas* (conductors or editors) of the commentaries on the four Vedas, in the presence of Vidyāranya we find Bukka described "as a worshipper at the lotus feet of Vidyātīrthēsa."†

Vidyātīrtha had been dead years before the date of the last grant mentioned above, which was made to Vedic scholars apparently at the close of their labours on the Bhāshyas. (The Bhāshyas were completed before S. 1326 as seen from Harihara's prasasti at Sri Sailam.‡) This is clear from the language of the introduction to the Bhāshyas, framed by Sāyana and dedicated to Vidyāranya. As this passage is usually misunderstood it may be quoted in full:

Yasya nisvasitam vēdāḥ yo vedeḥyōkhilam jagat |
Nirmame tamaham vande Vidyātīrtha mahēsvaram ||
Yat katākshena tad rūpam vahat Bukkamahīpatih |
Adisanmādhavāchāryam vedārthasya prakāsane ||

Line 3 of this passage which attributes the greatness of the emperor Bukka to the grace of the Swāmi is wrongly referred to Mādhavāchārya in line 4 instead of to Vidyātīrtha in line 2. The word *adisat* (commanded) would be inconsistent with the sentiment of regard expressed in line 3. Further, the language of the Bāchahalli grant quoted above clearly shows that the epithets '*yat katākshena tad rūpam vahat*' of Bukka refer to Vidyātīrtha, the Guru of Bukka and of Vidyāranya, and not to Vidyāranya himself.

This attribution to Vidyāranya of the achievement of his Guru Vidyātīrtha, in regard to the rise of Vijayanagar, is as old as the 16th century. In inscriptions of Achyuta and Sadāsiva Rāya we have Vijayanagar styled Vidyānagar, and in one of 1538 A.D.§ Achyuta Rāya definitely states that Vidyānagari was founded by Harihara I "in the name of Vidyāranya Sripāda." Here we have the source of Nuniz's mistake, for he wrote in this period. But the magnetic personality of Vidyāranya had eclipsed the milder, if greater, glory of his guru even much earlier. In an inscription of Harihara II (1380 A.D.) we have a picture of both side by side—of Vidyātīrtha who "removed impurity in the minds of men" and whose greatness was beyond the power of words to describe; and of Vidyāranya whose ravishing glances reminded one of camphor and incense and who was the incarnation of sweetness and of light (*jyotiḥ param manmatha*).|| No wonder that Sringeri Guruparamparā

* E. C. IV, Edatore 46.

† Mys. Arch. Rep. 1908 and 1915.

‡ Madras Ep. Rep. 1915.

§ E. C. XI, Od. 45.

|| Copper plate XV in Mys. Rep. for 1916.

which is quite correct in respect of the date of Vidyāranya's death (S. 1309), and of later events, pushes the beginning of his Pontificate to as early a date as 1333 A.D., and even alters the dates of his brother Bhōganatha *alias* Bhāratikrishna (to whom apparently the *Rajakāla nirnaya* purports to be addressed) to A.D. 1328-1380. There is clear epigraphic evidence of error in both cases. For Bhōganātha was the composer of the Bitragunta grant* of 1356 A.D. and therein he styles himself the *Narma Sachiva* (confidential minister) of King Sangama II. He had certainly not yet been ordained as a Sanyāsi. As regards Mādhava Vidyāranya he could not have succeeded Vidyātīrtha at Sringeri until after 1356 A.D. He was the representative of Vidyātīrtha at Hampi. It was after 1356 A.D., that he returned to Hampi from Benares, under the orders of Vidyātīrtha. Soon after his return Bukka Rāya "took him to Sringeri" and granted lands "to the matha of Vidyāranya Sripāda." It is clear that he had now succeeded to the headship at Sringeri. It is probable that Bukka sent for him as his Guru's condition was critical through lingering ailment or declining health.

If the confusion of Vidyāranya with Vidyātīrtha be understood and accounted for, it is still difficult to understand Nuniz's statement that the city was called after the Guru. Per contra, we have the statement of Ferishta† that the city was named Vijayanagar after the son of Ballāla III, Sri Vira Vijaya Virūpāksha. But this may be no more than a conjecture of Ferishta's, as Ballāla III's inscription of 1339 styles the city Virūpākshapura though with the adjectives *Vira* and *Vijaya* and not *Vijayanagar* or *Vijayapura*. And after all, the names *Vira* and *Vijaya* were commonly used by Rājas in the 13th and 14th centuries (cf. *Vira* and *Vijaya* Gandagopala of Kanchi,‡ and the names of the Vijayanagara kings of the first dynasty). But the statement of Nuniz is not to be dismissed so lightly as is done by Sewell who says "I think that there can be little doubt that this derivation, though often given, is erroneous, and that the name was 'city of victory' not 'city of learning'—*Vijaya* not *Vidya*."§ It is not enough for our purpose that Vijayanagar is actually styled Vidyānagara in records of Achyuta and Sadāsiva Rāya. We find in a copper plate grant of S. 1270 (1348 A.D.) that Harihara I was ruling from Vidyānagara.|| The capital city is named Vidyānagara also in grant of Bukka I¶ and in the Sagare plates

* E. I. III, 23.

† Brigg's trans., Vol. I, p. 427.

‡ E. I. Vol. XIII.

§ Frog. Emp., p. 19 footnote.

|| Mad. Ep. Rep. for 1921 A9. So also in literature. Ahobala Pandit writes in the 14th century *Vidyanagaryam* Hariharanripateh Sarvabhaumatvadysi (Telugu Gram.)

of Harihara II.* It is clear that the city was known both as a Vijayanagar and as Vidyānagar, and it is quite possible that the latter name owes its origin to Vidyātīrtha the royal guru. Local tradition has it that Vidyātīrtha had a great deal to do with the propagation of Śrī Vidyā and with the installation of the images of *Sarada*, the particular form of Saraswati adopted for worship at Sringeri. Iconographically, Sāradā can be easily distinguished from Saraswati for the *pasa* and *ankusa* of the goddess are conspicuous by absence at Sringeri.

The *Rajakala nirnaya* agrees with Nuniz's account of the rebuilding of the city. "The king going one day a-hunting, as was his wont to a mountain on the other side of the river of Nagundyam, where now, is the city of Bisnaga—which at that time was a desert place." When Harihara and others returned from Delhi to Anegondi "they found only the ruined basements of the houses, and places peopled by a few poor folk." Then came the building of the new city. And Nuniz adds—"After that hermit was dead, the king raised a very grand temple in honour of him and gave much revenue to it." Mr Sewell† identifies this with the temple of Virūpāksha at *Hampi*, but Nuniz does *not* say that the temple was at *Hampi*. Nor is there any shrine at *Hampi* associated with Vidyātīrtha who attained *Samadhi* at Sringeri and had the Vidyāsankara shrine at Sringeri consecrated to him after 1356 A.D. There is no evidence of any of the gurus occupying the heights above the temple of Virūpāksha as Sewell supposes. There is only a humble structure of Vidyāranya Samādhi to the back by left of the Pampāpati temple, but its style has nothing of the grandeur mentioned by Nuniz. It is clear that Nuniz's reference is to the Vidyāsankara temple at Sringeri.

We have thus far been considering the testimony of Vidyāranya himself as regards the rebuilding of the city and the rise of the dynasty, in connection with the other heads of evidence available. They all point to his guru Vidyātīrtha or Vidyāsankara as the real guide of Harihara and Bukka. If we identify Crynamata with Srīgamatha we can infer from Nuniz's account the safe custody at Sringeri of the treasures of the last of the kings of Kampili. It is possible that Vidyātīrtha handed over the royal appurtenances and other treasures to Harihara, to furnish the new capital. If so, the question is easily answered. "How could two brothers, flying from a captured capital and a conquered kingdom, suddenly establish in a new country a great city and a great sovereignty?"

Mr. Sewell was raising this question in respect of the account of

* Mya. Ep. Rep. for 1913.

† Forg Emp. p. 300.

the rise of Vijayanagar given in the *Vidyaranya Sikka* a Sanskrit work shown to Buchanan* while on a visit to Beidur in Mysore. I have not heard of this work, nor do I remember meeting with the name in any of the published catalogues of manuscripts anywhere. It agrees with the *Rajakala nirnaya* that the founders of Vijayanagar were guards of the treasury of Pratāpa Rudra II at Warrangal. But it repeats the mistake that Vidyāranya founded the city, which might possibly be an error of the copyist or of Buchanan himself. In answer to Mr. Sewell's objection we have merely to note that the city and kingdom were not founded suddenly after the brothers left Warrangal, and that the brothers had probably the resources of Kampili ready to hand. This theory would explain how the city of Vijayanagar was, as it were, built in a day. Nay, it is *necessary* to account for the rising of the city, for the testimony of Nuniz and of the inscriptions make it clear that Harihara I was not a great conqueror or despoiler for funds, but an old man who had "abandoned the old lands, since he knew that he could not regain them."†

And the character of Vidyātīrtha as we can gather from traditions and from his works extant, is quite in keeping with such a supposition. He was known as Vidyātīrtha or Bhāratitīrtha, denoting respectively his adherence to the worship of Sāradā and his headship of the matha at Sringeri. But his real name was Srikantha as he is styled in the Bitragunta grant.‡ In his *Rudra Prasna Bhashya*, wrongly attributed to Vidyāranya, he says he was the *shishya* of Paramāthmatīrtha. His chief works are *Taittireeyakasara*, *Kalanirnaya* wrongly attributed to Vidyāranya and *Panchadasiprakarana* which he wrote in joint authorship with his pupil Vidyāranya. A great deal of confusion has been caused by taking Vidyātīrtha, Bhāratitīrtha and Srikantha as different persons.§ It is therefore necessary to state that in the *Kalanirnaya* of Bhāratitīrtha|| the opening sloka identifies the author with Vidyātīrtha (*Vidyatirtham Bharatitirtham Ahuh*) and in the *Parasara Madhaviya* all the three names occur.¶ Prominence is given to Srikantha by Sāyana (*hridi bhaje Srikanthan avyahatam*), by Bhōgaṇātha (*Srikanthascha guruh parepi guravuh* in the *Ganapati Stōtra*) and by Vidyāranya** who calls Vidyātīrtha his *mukhyaguru*, and gives the highest place to Srikantha in arranging the names. Sāyana says his guru was Srikanthanātha †† The

* Buchanan: Malabar, Mysore and Canara II, 110.

† Forg. Emp. p 299.

‡ Ep. Ind. III, 23.

§ Ind. Ant. for 1916, p. 3.

|| M.S. in Oriental Libr. Mysore.

¶ Cp. also E.C. Muib. 11.

** *Anubhutiprakasika*.

†† Arulala Perumal temple Inc. E.I. III, 118,

scoffing remark of Bhogañātha could only mean that other gurus of the day were not fit to hold the candle before Srikantha, which would be a great insult to Vidyātīrtha who is always referred to with sincere respect, if the two were different.

The *Punyaslokamanjari* and *Jagatgururatnamalika* of Kāñchipura* have preserved traditions of the gurus of the mathas there. Vidyātīrtha comes in for conspicuous mention there also, and he is said to have had eight great disciples. His secular name is there given as Sarvajna Vishnu, son of Sārṅgapāni. Sāyana Mādhava the author of the *Sarvadarsara Sungraha* tells us that his guru was Sarvajna Vishnu son of Sārṅgapāni. Chennu Bhatta the author of the *Tarkbhaṣha Vyākhyā* tells us that he was a younger brother of Sarvajna, and the son of *Sahaja* Sarvajna Vishnu. Sāyana quotes in his *Sankara Darsana* from *Sahaja* Sarvajna Vishnu Bhattopādhyāya. Sanskrit scholars who have till now discussed the subject have overlooked the significance of the prefix *Sahaja* to Sarvajna Vishnu. It evidently shows that he was the brother, probably a younger brother, of a much greater man well known in his day. There is nothing against the view that he was a younger brother of Vidyātīrtha. Hence the confusion in the *Punyaslokamanjari* which was perhaps followed by Hall.† If so Vidyātīrtha would be the son of Sārṅgapāni; and Chennu Bhatta, who enjoyed the patronage of Harihara II, would be a younger son of the younger brother of Vidyātīrtha.

The Guru was a great saint and philosopher according to all accounts. He had rendered selfless service to the house of Vijayanagar as is clear not only from inscriptions but from literary traditions of the age. If Ahobala Pandita was, as tradition makes him, a nephew of Vidyāranya, we have an almost contemporary reference in his statement that in Vidyānagari Harihara I was given supreme power (*Sarvabhaumatva*) by the guru. The epigraphical counterpart we have in the inscription Yedatore 46 which speaks of Bukka I as ruling the earth which came to him at a glance of Vidyātīrtha (*Bhrukṣhepa matre sthitam*). The great guru had held the fortunes of a kingdom in custody for Hinduism. His work was done when he laid the foundation of an empire which was the bulwark of Hinduism for centuries.

III.

We may now proceed to examine the various legends and consider how far they preserve the facts of history. One has it that Vidyāranya "discovered a hidden treasure" after which he founded the city, ruled

* Cited by me in J. R. A. S. for 1916.

† Index to the bibliography of the Ind. Philosophical Systems, p. 8.

over it himself and "left it after his death to a kuruba family who established the first regular dynasty." The treasure which was apparently used in building the city may not have been "hidden," but deposited at Sringeri, and Vidyāranya's guru was the builder. There is no evidence of any of these abbots of Sringeri ruling there, but it is a fact that the kuruba or kurumba brothers founded the first dynasty. In the *Rajakalaniarnaya* we have the epithet *Kuruvamsa samudbhava* used of them. Kurumba is a variant of kuruba, and was probably identified by Nikitin with Kadamba, when he speaks of the Hindu Sultan Kadam residing at Vijayanagar.* We have already seen that Bukka and Harihara may have been friends and feudatories of the Hoysals Ballalas in the last few years before the Ballala dynasty disappears from history. There cannot be any truth in the legend that they were despatched against the Hoysalas by Malik Kafūr,† for there is no trace of any hostile relationship between them and the Hoysalas. The truth is in the variant of this same version which relates their flight from Warrangal to Anegondi or rather Kam-pili.

Lastly we have the legend mentioned by Couto that Bukka was a shepherd who had been obscure but won his way to power by serving a saint. He repelled an invasion of the Delhi Sultan, founded Vijayanagar, and brought under his sway his five neighbours, Canara, Taligas (Telugus?), Canguvarao, Negapatam and the Badagas. This is reminiscent apparently of the conquests of Kanchipura, Negapatam and the Tamil country generally. But the date 1220 given by Couto must be examined separately. Meantime, there seems to have been a tradition that the founders of Vijayanagar were of the shepherd class. It is retained in the name Yādava of the first dynasty. It is echoed in an 18th century Sanskrit work, the *Ananda Vijaya Champus*‡ of Srinivasa Kavi, which deals with Ananda Ranga Pillai, the famous dubosh of Dupleix but gives a summary of the earlier history of South India. It attributes the origin of Vijayanagar to a Gōpa named *Vijaya Nandana* who was the son of *Govinda* who had come to live at Ayanapura. This Ayana-pura we can identify with Anagondi as we are told later on in the work that the last scions of Vijayanagar took their abode there after quitting Chandragiri. The story is that one branch of the Yādavas were there. Vijaya, son of Govinda was tending cows and playing with his Gopa fellows, when the sage Vidyāranya contemporary of Vedānta Desika discovered marks of greatness in him and set him up at Vijayanagar. If we identify Vijaya of this story with Harihara, we get a new name

* Major: India in the 15th century, page 29. Dr. Oppert also considers Kurubas and Kadambus ethnically the same.

† For. Emp. p. 21.

‡ Oriental MSS. Library, Madras, No. 12381.

Govinda for Sangama. But the story was probably concocted in later times to account for the name Yādava. It contains thus much of truth, at any rate, that the Kuruba brothers claimed to be branches of the Yādavas. This we know to be a fact not only because the kurumbas are classed as cowherds in ancient Tamil Literature, but because there was marriage relationship between the first dynasty and the Sāluvas who usurped the throne in later times. A sister of Devaraya II, Hariṇa was married to Saluva Tippa and had by him a son Tippa Gōpa. In a copper plate grant* of Narasimha secured by me the Sāluva ruler traces his descent from the moon, through Dushyanta and Yudhishthira.

IV.

It now remains to consider the chronology of the events connected with the foundation of Vijayanagar. The narrative of Nuniz begins with the year 1230 which Sewell considers obviously a mistake for 1330. Couto begins his account with 1220, but his narrative is, as Sewell remarks, a mixture of several stories. But the chronology and the account of Nuniz do not stand corrected merely by the alteration of the initial date, for he says that the Raja of Kampili had been at war with Delhi for twelve years and that the Muhammadan army stayed in the fortress another two years before the revolt of the Hindus and the restoration of the kingdom. Further, there is in Nuniz's account an expedition to Gujarat undertaken by the Sultan of Delhi before that to the Deccan, whereas we know that Muhammad Tughluq proceeded against Gujarat only by 1347. Sewell considers Gujarat a mistake for the Deccan as he believes it to be conclusively established that this account can refer only to Muhammad Tughluq.

It appears, however, that Nuniz in his account of the Muhammadan invasions of the Deccan is confusing the events of the reigns of Ala-ad-din Khalji and Tughluq Muhammad ('Togas Mamede'), and that the dates given by him and Couto ought to be referred to the Saka era, not to the Christian Era. The conquest of the Deccan was begun in the Khalji's reign in the year Saka 1230, and it was preceded by the conquest of Gujarat which began in Saka 1220. Nuniz's statement that the war with Gujarat took many years and just preceded the Deccan campaigns, is quite in accordance with Muhammadan chronicles. According to Wassaf, the conquest of Gujarat was begun in A. H. 698 (A.D. 1298) and it took the Sultan nine years, lasting on to A. H. 707 (1307 A.D.).† The conquest of Telingana came two years later in A. H. 709 (A.D. 1930):

* In the Magetakara grant of Narasimha, dated 1414 Saka, to be published by me in Ep. Ind.

† Elliot Volume III, p. 44.

Thus the opening paragraph in the chronicle of Nuniz applies to Ala-ad-din Khalji, not to Muhammad Tughluq.

Nuniz's confusion of the two kings and attribution to the one of the deeds of the other appears in the historical note entered by him at the end of Chapter XX. He says of the Tughluq that, covetous of the conquest of Ceylon, he crossed over there, having made a causeway by throwing stones and earth into the sea. The latter circumstance reminds one of the story of the Rāmāyana, but we must remember that Ala-ad-din had it in his head to imitate the conquests of Alexander the Great, and well might he in this instance have aimed at being regarded as the Rāma of the age. Whatever the truth in regard to this incident, it is undoubtedly true that the conquest of Ceylon was in his scheme. Amir Khusru records in his *Ashika* that after the conquest of Tilangi (Telingana) the army proceeded to Ma'bar that it 'it might take the shores of the sea as far as Lanka.'* Lastly, Nuniz names the Sultan's general 'Meliquy niby' and 'Mileque neby' which certainly puts one in mind of Malik nabu Kafūr whom Nuniz calls a moor and Wassaf 'a very Saturn.'† It will be shown in the sequel how the chronology of Nuniz is not faulty but for this confusion.

The first date of moment for us in connection with the career of the founders Vijayanagar is that of the sack of Warrangal. Barani gives the date A.H. 621 (A.D. 1321) for this event, and there is no reason to doubt it. Harihara and Bukka might possibly have been in the service of Warrangal for some years and witnessed the invasions of 1309, 1318 and 1321 before the final fall of Rudra in the second invasion of Muhammed Tughluq in 1321, for Nuniz notes that they were already old men in 1336, a statement which we can accept in the case of Harihara at any rate.

The second date of importance is that of the fall of Kampili in connection with Gurshasp's rebellion. The chronology of Muhammed Tughluq's reign was involved in confusion, but it has been cleared just now by the labours of Sir W. Haig‡ who has gone minutely into the evidence. He accepts the evidence of Badaoni and places the rebellion and its suppression alike in 1327 (A.H. 727). But Badaoni's statement that the rebellion occurred at Delhi must be taken to refer only to the beginning of the revolt when Gurshasp refused to swear fealty to Muhammad at Delhi. Both the circumstances narrated in connection with the rebellion and the evidence of Ibn Batuta militate against the placing of Gurshasp's death in the same year. For Ibn Batuta places

* *Ibid.*, 550.

† *Ibid.*, p. 50.

‡ J. R. A. S. 1922, pp. 336-365.

the event not only after the transfer of the capital to Devagiri which Sir W. Haig places in 1327 but after the compulsory evacuation of Delhi and the removal of the population *en masse* to Devagiri, which he places two years later (1329 A.D.) Further, we are told that the rebellion of Kishlu Khan was the result of the Sultan's displeasure at his having buried the remains of Gurshasp, and that Ibn Batuta* had arrived at Multan, in 1334 when he saw the severed head of Kishlu Khan. In these circumstances, the death of Gurshasp could hardly have taken place before 1333, and the death of the Raja of Kampili just preceded it. In the uncertain chronology of the reign we cannot afford to neglect the evidence of Ibn Batuta who was an eye witness, and we must prefer it to that of Badaoni who lived and wrote in the third century after the event in question, even if we understand Badaoni as implying that the rebellion and death of Gurshasp took place in 1327. We may add that as accepted by Sir W. Haig himself, Ibn Batuta is more independent and reliable as a chronicler, even on matters of date, than either Firishta or Badaoni.

The chronicle of Nuniz informs us that after staying at 'Bisnaga' two years, having already for twelve waged war on the kingdom, the Sultan of Delhi left the place on getting news of rebellions elsewhere. At once there was a revolt of the Hindus, and the Sultan released Harihara, Bukka and the rest. The reference is evidently to Muhammad Tughluq's leaving Telengana in 1336. Meantime rumours had reached Daulatabad that he had died of the pestilence of that year, on which his faithful amir Hushang rebelled and took refuge with a hospitable Hindu chieftain in the Western Ghats. Muhammad reached Daulatabad and remained there till July 1337. The revolt of Kampili and the release of the brothers must likewise have happened when the Sultan was at Daulatabad. This would fall in A.D. 1337, the traditional date† of the foundation of Vijayanagar.

TABULAR STATEMENT TO ILLUSTRATE THE RISE OF VIJAYANAGAR.

<u>(Couto) Saka 1220</u>	Muhammad Ibn Tughluq's invasion of Gujarat.
A.D. 1298	War off and on 'for years' (Nuniz).
<u>(Wassaf) A. H. 707</u>	The conquest of Gujarat completed.
A.D. 1307	
<u>Saka 1230 (Nuniz)</u>	Deccan campaigns of Ala-ad-din Khalji who projects an invasion of Ceylon.
A. H. 709	
A. D. 1308-1309.	

* Elliot Ibid p. 616.

† E.G. in the Chennai Basava Puranam; and the Raya Paddhati *loc cit* Astronomical data are given for Saka 1258 Dhatri. (see next page).

A.D. 1310 Invasions of Warrangal by the Muhammadans

 " 1318 .. Harihara and Bukka as minister and treasurer at Warrangal.

 " 1321 ..

A. D. 1321. .. Sack of Warrangal, Rudra II captured. Harihara and Bukka flee to Kampili.

A. D. 1327 .. Disaffection of Gurshasp.

A. D. 1333 .. Muhammad Tughluq pursues Gurshasp into Kampili.

 " .. Jauhar at Kampili.

 " .. Gurshasp flees to Dwārasamudra but is surrendered and butchered.

 12 years of war (Nuniz), *i.e.*, after the sack of Warrangal in 1321, for Muhammad Tughluq in South India.

A. D. 1333-35 .. Kampili under the Muhammadans.

A. D. 1334 .. Ibn Batuta at Multan, eye witness of the execution of Kishlu Khan for having given Gurahasp a burial.

A. D. 1334-36 .. Pestilence at Warrangal. Rumoured death of Muhammad Tughluq. Famine in Delhi and in the Deccan. Rebellions at Daulathābād, at Jhānsi and in Lahore.

A. D. 1336 .. Revolt of Kampili. Release of Harihara and Bukka. They set up at Anegondi.

A. D. 1336 .. They meet Vidyātirthra at Matanga Parvata in Hampi. Rebuilding of Vijayanagar.

A. D. 1337 .. Muhammad at Delhi. Severe famine.

A. D. 1337 .. May 7th Coronation of Harihara I 'the year Dhātri Saka 1258 Vaisākha Sukla 7 Wednesday Magha Nakshatra, Simha Lagna.' Data correspond to Dhātri S. 1258 *expired i.e.*, Isvara Saka 1259 *current* the 12th day of Vaisākha, Wednesday. Magha commenced at '36 of that day, and Saptami was current till '75 of the day. Midday of that day is particularly auspicious for an *Abhisheka* or Coronation, as it is the time of *Gangot-patti*, the birth of the Ganges *i.e.*, the descent of the river from Mt. Kailas according to the Purānic story.

A. D. 1338 .. Failure of Muhammad's expedition to the Himalayās.

A. D. 1339 . . . Rebellion of Malik Fakhar-ad-din Silahdar and of Ain-ul-mulk ; rebellions in Bengal, Gulgarga, and Bidar.

Saka 1261
A.D. 1339

First known inscription of Harihara I, king of Vijayanagar. The data given—Vikrama Chaitra Sukla 1 Guruvāra—are regarded by Kielhorn as irregular * because they cannot be referred to any day in Vikrama. But these data are correct if applied to the cyclic year Pramādhiu and refer to the Telugu New year's day March 11, 1339, Thursday.

Saka 1266 †
A.D. 1345

Death of Harihara. Cyclic year Tārana, Bhādra-pada Bahula 10, Sōmavāra. Rice refers this inscription to Harihara II. Kielhorn remarks that the data is irregular for both Harihara I and Harihara II, Saka 1266 and 1326. But the data correspond exactly to Saka 1266 expired, *i.e.*, to 1267 current Pārthiva, Adhika Bhādrapada. The date is 22 August 1345, Monday. Dasaini began at noon that day. Bukka's accession the same year is indicated by the grant to Nāchana Soma‡ of Saka 1266 Tārana and by the difficulty of referring the year Tārana to Bukka II. § (It would thus appear that Sringeri No. I of 1346 A.D. was engraved a few months later than Harihara's actual visit to Sringeri.)

S. V. VENKATESVARA AYYAR.

* Ep. Ind. Vol. VII.

† E. C. ravana Belgola 126.

‡ See E. C. X Mg. 158 and Gd. 46

§ Mad. Ep. Rep. 1912 p. 78.

REVIEWS.

The Teaching of English in India. H. Wyatt, I.E.S. Oxford University Press, pp. 171.

THE problem of English is still with us and Indians approach it in a variety of moods. There are those who would banish it altogether—nursed on the pure milk of patriotism. Others, wiser (as they think), would confine the evil thing within narrow limits, and enthuse on the vernacular medium and the vernacular glory (potential);—and are in hot haste to experiment—on the rather sound principle of doing to-day what could perhaps be done only tomorrow. Some there are, still left, —left behind?—mildly regretting any lessening of the influence and spread of one of the finest of languages and literatures, and still hoping that better and wiser counsels will ultimately prevail and that India will settle down, free, and friendly, to a closer union with England and English. So we feel, every one in his own way : but the fact remains, that we still want English, good English, and do not always get it.

The problem, no doubt, is one for Indians to solve for themselves, but we may still learn from an Englishman, specially, if he happens to be, as Mr. Wyatt is, absolutely free from any racial or national bias, rather sympathetic to Indian needs and aspirations than otherwise, and an educational expert, and principal of a training college. He has read widely in the literature of the subject and strives to avoid the extremes of the methods of bygone days, with grammar, paraphrase, translation, general exercises and readers and the more recent principles, fads and fallacies of the so-called Direct Method and Pictures and Composition, Intensive study and miscellaneous cursory reading. He discriminates, picking out whatever is economic, practical, efficient in either school of teaching, the only real Direct Method, as he calls it, driving straight to the goal, with the least waste of time or effort or interest. The book is addressed to University Professors, Directors of Public Instruction, Head Masters or Teachers of English in High and Elementary Schools, and the Indian public, in general, interested in education. Without following the writer into all his details and suggestions, his strictures on examinations, and specimen question papers, new style, and hints on how to cure stammering (in an appendix)—for an educational treatise by a specialist should be exhaustive and leave nothing to be pointed out by the reviewer—the reviewer has no hesitation in recommending this book

to English teachers, for they will find in it a great deal with which they will be in hearty agreement and not a little to stimulate fresh thinking and experimenting. For, whatever the shortcomings of examinations and schemes of study and students, no earnest teacher of English, who believes in English, can be satisfied with the results he is at present obtaining by his teaching.

Mr. Wyatt warns us against pitching the standard too high and sets before the high school teacher a modest but clear aim. It is—"to send forth the pupil at the end of his school course able to dispense with the teacher's aid in conversing, speaking, understanding, reading and writing enough English to serve him in his ordinary social intercourse and in the college lecture room." In another place, he adds—"and *trained* in consulting books of reference on school subjects." He is not very keen on "ability to make a speech of oratorical or literary flavour before an audience."

His main principles and methods and demands for reform are set forth in accordance with this aim. The English teacher in the early stages is never to neglect the vernacular. (We are glad to notice that he thinks that a resort to the vernacular, need not in itself be a fall from grace.) If the vernacular teacher were really better qualified than he is, he could be trusted to teach much of the arts and laws of the language, which after all are common for all languages; but this work has now to be undertaken by the English teacher, who must have a good knowledge of the vernacular and co-ordinate wherever possible the two linguistic studies—Stress is laid on the oral method, the pupil and not the teacher doing most of the speaking in the class and Readers and Composition being kept for reference and practice. In this connection, Indian writers and Text-Book Committees are exhorted to provide suitable text-books for the young pupils: related to Indian life, commanding Indian interest, and in colloquial modern English;—either specially written or adapted from English books. The pupil must feel that the English he is learning is useful to him, that it is worth while to learn—A better class of trained teachers should be forthcoming: who will not lecture on high literature in grand book style, but have more command over the language of daily conversation, correspondence, and the press. "What the University student acquires is English at once bookish and bare. What the teacher of English requires is the English of speech in its simplest and most useful varieties"—Attention should be paid to accent and the tone of sentences, the latter specially, though "to spend a great deal of time in an endeavour to secure perfect accuracy is not worth while." Indians need not pretend to speak quite like Englishmen, ape it, that is,

On one point the writer is firm : insisting again and again that literature and language should be kept distinct. In the early or even high school stage, he is convinced that, "with the majority of pupils, schools and teachers, to attempt to teach literature would be waste of time"—especially, teaching English poetry. His views come out most strongly in the following passage : "We are teaching the pupil in the name of English, two (or more) languages at the same time, the colloquial—the language of daily use—and a literary language, or more than one literary language," if the authors chosen are from different periods. "The only true economy is to teach one language thoroughly, and that must be the language needed in practical life. To aim at literature is to miss the way to language. To aim at language is to pave the way to literature. These two sentences should be learnt by heart by every teacher of English in Indian high schools. Familiarise the pupil with familiar English all along, and you kill two birds with one stone. Aim two stones at the two birds separately and you run a risk of missing both."

If *some* literature and literary appreciation are desired, as perhaps they are desirable, well, "the *special approach* to literature should be made through the vernacular or not at all." (One notes again the implied emphasis on better vernacular teachers and one may add the best vernacular, really interesting and vital vernacular, literature being available in well-chosen anthologies and selections.) The teaching of literature, to be of value to the pupil, means the introduction of the pupil to the best in thought and expression in the language, his appreciation of the nobility and beauty of what he reads, and the cultivation of the power of appreciation to a higher degree. "Teachers or would-be teachers who do not 'appreciate English literature' themselves, who are not keenly conscious, that is to say, of delight in the beauty and satisfaction in the truth of anything that they have read or listened to in English, should make no attempt to teach literature to their pupils, but should limit themselves sternly to the teaching of language, because they may be quite certain that pupils will gain nothing by receiving from their teacher what he has not to give, and will be merely mocked by a pretence." So, even when the teacher has well chosen literature for high school pupils, he is cautioned not to teach poems which he does not himself appreciate, or which the pupils at that stage cannot appreciate; and also, never "to confuse the learning of minutiae of language or mere explanations of meanings or of literary or historical allusions, or a grammatical treatment of a passage, or a learning of the subject matter with the teaching of literature."

Good sentences and well pronounced, as Portia says, heavenly

Portia; and as Nerissa adds, they would be better, if well followed. And they can be followed only when literature is not the staple in the high school, the right literature is chosen, and the real lover of English literature stands up to interpret, and not "lecture."

B. M. S.

* * * *

Shakespeare: the Man and his Stage. Lamborn and Harrison. The World's Manuals. Oxford University Press. pp. 128.

BOOKS on Shakespeare are legion, and still they come. The latest is one of the World's Manuals series, designed "not only to give the special student some idea of the landmarks which will guide him, but also to provide for the general reader who welcomes authoritative and scholarly work, presented in terms of human interest and in a simple style and moderate compass." Of such aim and writing, the present book is an admirable example. Within 128 pages of lucid phrasing are compressed the very pith of Shakespearean scholarship with regard to the life, the personality, the environment and the theatrical achievement of the world's great dramatist.

The outstanding merit of the volume is its sense of fact. There is nothing here of the vague surmises and fanciful castle-building which obscure the known facts about Shakespeare in the bigger biographies. The main points are always supported by carefully selected but fairly representative evidence in the shape of quotations and documents, so that the contemporaries themselves seem to be constituting Shakespeare before our eyes. A more direct appeal to the eye is made by the illustrations—quite a number of them for the size;—portraits and busts of Shakespeare, his house and monument, his patrons, Queen Elizabeth and Southampton, his fellow-actors, Burbage and Tarlton, his Globe Theatre, the city of London and its playhouses, costumes of the age, the title pages of books, and facsimile of Shakespeare's writing and a specimen page of the First Folio. Thus we have as in a mirror the very form and pressure of the age in which the poet lived and moved and had his being.

We hope the undergraduate will be attracted by some indication of the contents. The book is in four sections. First, the career, the relation to contemporary writers, the probable personal sorrows and disappointments and the general admiration for the man—gentle, sweet, honest—even more than for the works. Next, a vivid account, extracts telling the story, of the spirit and outlook of the age, the manners and customs, the fashions and the tastes, all the bustle and stir of events and personalities, voyages and discoveries in unknown lands and literatures, the culmination of it all in the Renaissance and the Reformation.

"For this London of mingled barbarism and culture, refinement and brutality, pagan learning and superstitious ignorance, for this unquiet mixture of races, classes and dialects, the plays of Shakespeare were written and staged." Follows the history of the companies of players, the managers and the money they made, the fate of manuscripts of plays and the structure and the influence of the theatre, the players and the playwrights and their emulations and quarrels. The book closes with the history of Shakespeare's plays till they became the living monument of the First Folio. No aesthetic criticism is attempted, but their dates and their sources of inspiration for style, verse, material and form are briefly touched upon.

The beginner in Shakespeare cannot have a better book to start with. It is, indeed, plenty of riches in little room.

B. M. S.

* * * *

Hypnotism and Suggestion. By Louis Satow, London : George Allen and Unwin, Ltd. 10-6 net.

SOME books are written with the definite object of advancing knowledge, while some are written merely to popularise what is already known. The book under review entirely belongs to the latter class. It is written in a very fresh and vigorous style, and gives a most interesting survey of hypnotism from the earliest times to our own day, when the theories of Mons. Coue have caused a popular furore which is rarely the reward of psychologists. The author completely accepts the view that hypnotism is at bottom only suggestion, and very vividly brings out the importance of suggestion in all departments of human life. Not the least interesting phase of the book is its positivistic bias, and an open antipathy to metaphysics and religion. He is one of those who would relentlessly reduce the influence and the miracles of prophets to phenomena of mere suggestiveness. In this sense the book is one of the most iconoclastic we have come across and is bound to court the resentment of religious-minded people. The language too is often an echo of Nietzsche himself. On the other hand the book is most healthy in exposing the pretensions of the press and the sham logic of militarism whether it be in France or Germany. In the final chapter : "The Outlook", the author boldly writes : "It is, to be sure, a difficult task to free mankind from superstition, ignorance and intellectual servility. But there is one excellent method : the complete and final renunciation of all belief in another world, and the training of mankind, from youth upwards, in an atmosphere of free, unprejudiced, critical, scientific thought." This is a sentence typical of the book. It is

highly contentious, but it bears the mark of sincerity. If he seeks to destroy some of the most cherished beliefs of mankind, he does so with a logic that is unanswerable on its own ground. The reality of religion and religious experience can never be impressed on those who have never felt the religious impulse. Louis Satow is certainly one of these people. To argue for or against him is equally easy, for the difference in outlook is at bottom temperamental and thus gives rise to an endless controversy. Without venturing to be dogmatic in either way, we can confidently recommend the book to all those, who relish independence of thought and an equally independent avowal of it.

A. R. W.

* * * *

A History of Hindu Political Theories pp xi + 296. By U. Ghoshal, M.A., Ph.D., Oxford University Press, 1923.

THE book is divided into seven chapters together with an introduction covering the first 23 pages. In the first chapter the author gives us a brief description of the social and political institutions of the early Hindus, as depicted in the Vedas and the Brahmanas. Referring to the division of the early Hindus into four classes, the author says that they had "all the essential elements of the caste system of later times." But there is no evidence to prove that they had the chief characteristics of castes. Division of human society into classes, such as priests, warriors, traders, and labourers, is quite natural and the Hindu society of the Vedic period was no exception to this natural order. So long as classes retain the freedom of intermingling with each other by ties of *connubium* and *commensalis*, they will remain as classes. But when once this freedom is lost, the transformation of classes into castes becomes irresistible. Unlike the ancient Greeks and the Iranians who retained the freedom of interdining and intermarrying with each other among the four professional classes into which they were also divided, the Hindus for some reason or other abandoned the privilege of communal intercourse and became entrenched into exclusive rigid castes. That the Hindus of the Vedic and Brahmanic periods were interdining and intermarrying with each other among their four professional classes, is clearly stated in all the Sutras and Smritis. Hence there is no reason to acquiesce in the author's view that caste-system was prevalent in Vedic India.

Speaking of the divine right of kings, the author cites some Vedic and Brahmanic passages in which kings were identified with gods such as Indra, Mitra, Varuna and others and infers from it that the Vedic kings like their successors in mediæval India were invested with divine

right and power over their subjects. It is true that in the Smritis of Manu, Yagnyavalkya, and others, kings were not merely identified with gods but also were spoken of as having their bodies composed of the elements of the bodies of the regents of the eight quarters of the world. But nowhere in the Vedas such special birth seems to have been ascribed to kings. It is not merely anointed kings that were so identified, but also all sacrificers whether Brahmins or Vaisyas. Hence from the mere flattering identification of kings with gods it does not follow that the kings of the Vedic period were really regarded as divine persons. Moreover Vedic gods are mere personifications of natural phenomena and are not such omnipotent and omniscient beings as the Puranic Trinity. Vedic Vishnu is quite different from Puranic Vishnu. While Vedic Vishnu signifies merely the sun, Puranic Vishnu means an omnipotent and omniscient god pervading and controlling the whole universe. Hence the Vedic identification of kings with gods cannot be taken to mean more than mere personal sanctity.

Whatever might be the nature of the power which Vedic kings exercised over their subjects, the passage quoted by the author from the *Satapatha Brahmana* (V, 4, 4, 5) as implying certain limitations to the enormous power wielded by Vedic kings cannot be taken to mean any constitutional check. There are, however, many passages in the Vedas referring to frequent expulsions and restorations of tyrannical kings. It can be safely inferred from those passages that there was no constitutional or legal restraint either on the king's power or on the fury of the people.

From the primitive monarchy consisting of a king, his indispensable priest to employ charms and spells against all kinds of calamities, and seven or eleven officers whose respective functions are not clearly known, the author passes on to the 2nd chapter treating of social and political laws and of the development of polity. What is spoken of here as law is Dharma which means many things. In the Veda it means sacrifices; in the Sutras and Smritis it signifies not merely communal religious and social customs, but also orders issued by kings. It is not clearly known whether or not ancient kings enacted laws. This much, however, is certain that they sometimes issued orders either on their own responsibility or after consultation with their ministers enjoining the observance of certain customs and prohibiting others.

It is also certain that apart from enforcing the observance of established usage and customs, the special orders or edicts issued by the kings were all based upon caste or religious customs. This has been clearly pointed out by the author and supported by lengthy quotations from the *Mahabharata*.

The development of the monarchical form of government as contrasted with the republican form of government favoured by the Buddhists is fully traced in the light of Kautiliya's *Arthashastra* in the succeeding chapters. The author has clearly pointed out how the application of the law of the expedient in preference to moral or constitutional law to settle international or inter-statal affairs is the special feature of ancient Indian polity.

In the fifth and succeeding chapters the author proceeds to point out the beginning of the decline in the growth of new political ideas. Neither in the *Smriti* literature nor in the *Nitisaras*, such as the *Kaman-daka* and *Sukra Nitisaras* there is to be seen any new political thought. They are all full of repetitions of old sayings found in the *Arthashastra*.

The book is on the whole a good summary of what has been said on the political institutions of the Hindus and affords an interesting and instructive reading.

R. S.

* * * * *

Junior Geometry for Colleges. By G. A. Srinivasan, M.A., L.T., and C. Krishnamachari, M.A. (Longman Green & Co.)

THIS book serves a much-needed want of a suitable text-book for the Mysore University Entrance and First Year Certificate Examinations, as well as for the Intermediate Examination of the Madras University. The book that is usually adopted is "A School Geometry" by Hall and Stevens. This is, however, quite insufficient for the needs of the First Year Certificate Examination students, and at certain places the treatment lacks in rigour, as for example, in the proofs of Ceva's and Menelaus's theorems. The present book is free from all such deficiencies, and the treatment is simple, lucid and at the same time perfectly rigorous. The sections on loci, construction of circles, and Maxima and Minima, are specially useful. The Appendix on "Rational and Irrational Numbers" is written with exquisite clearness, and may be usefully consulted by the advanced students. There is no doubt that the book will be welcome to the students for whom it is intended.

C. N. S.

* * * * *

Studies in Tasawwuf. By Khan Sahib Khaja Khan, Madras.

THE author of "Studies in Tasawwuf" seeks to embrace within the compass of a small volume all necessary information on the Islamic mysticism. He discusses a number of subjects, commencing with "Esoteric Narratives" a useful chapter for such as wish to know Sufism

as thought and given out by half mystic and half orthodox Muslims, The second chapter on Philosophic Schools of Islamic thought, deserves much attention. Among philosophers mentioned are (1) Ibnul-Arabi, who is also called Shaik-e-Kabir, the greatest Islamic mystic. Ibnul-Arabi made Sufism a mystic philosophy, (2) Imam Ghazzali, who brought Sufic teaching into alliance with the orthodox Islam. Thus, the school of Sufism is divided into two chief divisions: the first, mystic philosophy taught by Ibnul-Arabi, Abu-Ali-Sina, Ibnul-Rushd and others, and secondly mystic religion organized and explained by Imam Ghazzali, Jami, a system which is followed up-to-date by the majority of Sufi Mursheds both in Persia and India. In this school (*i.e.*, mystic religion) Sufis show (1) that the germ of their thought has been taken from the Koran, and interpreted in a way of which a typical specimen can be found in "Studies in Tasawwuf, but such interpretations are possible also in connection with the Bible or Avesta. In fact in my humble opinion, the full grown tree of mysticism in Persia about the 14th century was already a tender plant long before the Islamic conquest. Burzuya, the well-known physician and philosopher, who made a tour in India, and by order of Anoshirwan, the Sasanian king, translated Panchatantra from Sanskrit into Phalavi, in his introduction says "The more I reflected upon the world and its joys, the deeper grew my aversion towards them. Then I made up my mind entirely to devote myself to the life of the Blessed. For I saw that Asceticism is a garden, the hedge of which keeps off at a distance eternal evils, and the door through which man attains to everlasting felicity, and I found that a Divine tranquility comes over the ascetic when he is absorbed in meditation; for he is still contented, unambitious, satisfied, free from cares, has renounced the world, has escaped from evils, is devoid of greed, is pure, independent, protected against sorrow, above jealousy, manifests pure love, has abandoned all that is transitory, has acquired perfect understanding, has seen the recompense of the next world, is secure against remorse, fears no man, does no harm, and remains himself unmolested."

Abu-Ali-Sina (a Persian of Hamadan) wrongly mentioned by the author "of Spain" was the greatest Persian philosopher of his time, concerning whom, Col. Sykes in his History of Persia says, "Abu-Ali-Sina, by carrying on, and developing the science of Hippocrates and Galen, and the philosophy of Aristotle and Plato, exercised an influence on the best brains of both the East and the West, not only during his life time, but for many generations after his death. His books were translated into Latin, and remained a standard work of Europe from the 12th to the 16th century." By this, my object is to show that Sufism

is not only a mystic religion, extracted from Islami doctrine, but a mixture of already existing thoughts prevalent in Persia and other countries conquered by Islam, combined with the Islamic, Vedantic and Buddhist teaching. For instance, our author says (page 21) "When Jalali (majestic) attributes appear, all manifestations recede into nothingness, and when Tamali (beautiful) attributes are in evidence, the beautiful world comes into being." Something like this is found in the philosophy of Zoroaster, who asserted that good and evil are the primary manifestations of the Deity (Yazdan). They were called Hormuzd and Ahriman." In the same manner we can interpret the name, Vishnu and Siva.

In the chapter: "Insamul-ul-Kamil" the author writes that the word *Insan* (man) is variously derived—"some say the word comes from Ayn-San, i.e., like eye, or man is the eye with which God beholds *Sipat* and *Asma* in limitation." *Insan* is an Arabic word, and its origin should be searched in some older Arabic or Semitic dialect. The above division of the word, is very peculiar, the first half being Arabic (Ayn) and the second Persian (San).

The "physical aspects" or the manifestation of the Name-az-zaher, etc., as explained by our author, can be well compared with the Hindu idea of *Purusha*. The technical terms are very well explained, and though I must confess that the author has paid more attention to the religious side and less to philosophy, and much less to the historical rise, and development of Sufism, on the whole I commend the book to the students who wish to understand the outline of Sufism and follow works of Moulana Rum, Hafiz, Jami and in general Persian and Urdu poetry. The author has tried to place before a student of Islamic Sufism all necessary information and he should be congratulated on his achievement.

M. A. S.

* * * * *

The Adventures of Hajji Baba. By James Morier. Edited by C. W. Stewart. The World's Classics. Oxford University Press. 2/ net.

THAT Morier's Adventures of Hajji Baba should find a place in the famous World's Classics series will not come as a surprise to any one who has read the book. The present writer remembers reading it nearly twenty-three years ago, and he presented at the time the spectacle of "Laughter shaking both his sides." The book is not so widely read in India as it deserves to be. We hope this reprint will greatly conduce to its increased popularity, for Hajji Baba is a personality that belongs to the rank of the immortals. It was indeed a great tribute to the observing genius of Morier that when his book was translated into Persian, even

educated Persians "insisted that the Persian book was the original, and the English version a translation." Can any praise, any tribute go higher? And was ever a tribute more richly deserved?

A. R. W.

* * * *

The Last Siege of Seringapatam with a short illustrated guide to the city. By the Rev. E. W. Thompson, M.A., Wesleyan Mission Press, Mysore City. Re. 1/4.

THE booklet under review is an old friend of visitors to Seringapatam. But the new edition contains also a short guide. The major portion of the book is concerned with an account of the Final Assault, May 4th 1799. It contains much that will interest an Englishman or a student of history. But the general reader will perhaps find the prefatory notes of much greater interest, for they contain a very chatty, even though at times a somewhat grim, account of Tippu's days, culled mostly from old books, long since forgotten. The latest addition to the book: "A short guide to Seringapatam" will indeed prove a boon to the many who covet to gaze on the ruined splendour of Tippu's days. Though we are not in a position to take sides, it comes as a surprise to learn that the place where Tippu fell is wrongly shown by the tablet put up by the Mysore Government. For the better guidance of our readers, we shall quote Mr. Thompson's account. "Passing this gate (*i.e.* the Water Gate) either on the upper level of the rampart or on the lower level of the roadway, about 200 yards further on we come to a square plot on the left of the roadway, surrounded on three sides by the mud walls of the gardens, but open on the fourth to the road. This is the traditional site of Tippu's death." We are sure the book will prove most useful and have the generous support of the public.

A. R. W.

COLLEGE NOTES.

Maharaja's College.

Maharaja's College has had one more department added to its activities: the mathematics department. We are glad to notice that it has already started work in full swing under our new colleague Mr. C. N. Sreecnivasa Iyengar, one of the ablest alumni of this University. We cordially welcome him to his new sphere of work and wish him every success.

THE UNIVERSITY UNION, MYSORE.

The Annual General Meeting.

The Annual Meeting of the General Body of the University Union came off on the 1st August 1923. The President of the Union, Professor A. R. Wadia, B.A., (Cantab.) Bar.-at-Law, graced the chair.

The Annual Report was read by the retiring Student-Secretary, Mr. M. G. Lakshminarsu, and was approved and accepted. The Annual Statement of Accounts was also read and accepted.

Then came off the interesting item on the agenda: the election of the Vice-President, the Student-Secretary, an Auditor and two members to represent the General Body of the Union on the Managing Committee. The Hall was full of enthusiasm and presented an appearance hardly matched by similar occasions in previous years. A considerable majority of the students exercised their privilege and voted.

The President thanked the retiring Vice-President, Secretaries and the members for their co-operation in the management of the Union. The meeting terminated with a vote of thanks to the chair.

Office-Bearers, 1923-24.

President. Professor: A. R. Wadia, B.A., (Cantab.) Bar.-at-Law.
Vice-President. Mr. A. N. Moorty Rao, B.A. (II M.A.)
Treasurer. „ N. S. Subba Rao. M.A., (Cantab.) Bar.-at-Law.

Hon: Secretaries 1. „ S. V. Ranganna, M.A.
2. „ M. C. Gurubasavaiya. (III B.A.)

Members of the Managing Committee.

Nominated by the University Council for a period of one year:—

Dr. B. Nanjappa, M.B. & C.M.

Mr. Sultan Mohiyuddin, M.A., L.T., M.Ed.
(Leeds)

The Rev. E. S. Edwards.

Elected by Class I of Members:—

Mr. B. M. Srikantia, M.A., B.L.

Elected by Class II of Members:—

Mr. S. V. Krishnaswamy Iyengar, M.A., B.L.

Elected by Class III of Members:—

Mr. M. S. Krishna Rao, B.A., B.L.

Elected by Class IV of Members:—

Mr. N. Narasimha Moorty, M.A., B.I..

Elected by Class V of Members:—

M. A. Class Mr. T. S. Margasahyam Pillay.

Commerce. Mr. B. V. Seshagiri Rao.

3rd Year B.A., { „ A. Ramachandra Reddy.
„ „ C. S. Jagannatha Rao.

2nd Year B.A., „ A. Narayana Rao.

1st Year B.A., „ L. Thimmiah.

Elected by the General Body:—

Mr. S. Guruswami.

„ S. V. Ranganna, M.A.

The first ordinary General Meeting this year was held on Saturday the 14th July 1923 at 6-30 p.m. in the Debate Hall of the Union under the Chairmanship of Prof. A. R. Wadia, B.A., (Cantab.) Bar.-at-Law, the President of the Union.

Mr. K. Ramiah, III year B.A., moved the proposition that “ In the opinion of this house, University Education does not fit men for success in life.”

Mr. Nagabhushanam, III year B.A., opposed the motion. Mr. A. R. Reddy, III year B.A., spoke third and Mr. Narayana Sastry, II B.A., spoke fourth. The motion was lost by two votes.

The second meeting was held on the 21st July 1923. Mr. A. N. Moorty Rao, B.A., was in the chair.

Mr. M. H. Gopala Iyengar, III B.A., moved that “ This house welcomes the spread of Socialism in India.”

Opposer. Mr. N. S. Hirianniah, II B.A.

3. Mr. M. S. Srikantiah, I B.A., spoke for.

4. Mr. Tirimala Iyengar, I B.A., spoke against.

The motion was lost.

The third meeting was held on the 28th July 1923. Mr. B. M. Srikantia, M.A., B.L., presided on the occasion.

Mr. M. V. Krishna Moorty, B.A., moved that "This house welcomes the extention of the equality of rights to women."

4. Mr. M. K. Varadarajan, B.A., opposed the motion

3. Mr. A. Narayana Rao, II B.A., spoke for.

4. Mr. M. Basappa, III B.A., spoke against.

The motion was lost.

An Impromptu Debate was held on the 4th August 1923, under the Chairmanship of Mr. S. V. Krishnaswamy Iyengar, M.A., B.L.

The subjects debated were very interesting and the debators were very humorous in their speeches. These were some of the subjects:—

1. Tippu Sultan was a great administrator.

2. The present system of caste in India is a hindrance to national progress.

3. Higher education for women.

4. Post puberty marriage.

5. Idling is healthy.

6. Untouchability.

7. Authority forgets a dying king.

8. Bread is better than Shakespeare.

The fifth meeting was held on Sunday the 12th August 1923, at 6 p.m., under the distinguished chairmanship of Mr N. S. Subba Rao, M.A., (Cantab.) Bar-at-Law, Principal of the Maharaja's College, Mysore.

This debate was conducted by the Freshmen.

Mr. T. M. Amir moved that "This house welcomes the abolition of Untouchability."

Mr. K. Seetharama Sastry opposed the motion.

Mr. N. S. Sreekanthiah spoke third.

Mr. K. Shamanna spoke fourth.

The motion was carried by a huge majority, only about ten voting against it.

This debate was a grand success and the debators were congratulated by the chairman.

All these five general meetings were well attended and the members participated in the debates with great interest and enthusiasm.

M. C. GURUBASAVATYA,
Hon. Secretary.

27th August 1923.



THE MAHARAJA'S COLLEGE SANSKRIT ASSOCIATION.—Six ordinary meetings were held in the year 1922-23, and in each papers were read and discussed with great enthusiasm. Of them, we may particularly choose the two striking papers describing "The Essential difference between the Nyaya and Sankhya Systems of Philosophy" and "The Fundamental Conception of the Soul in the two Systems." The remaining four papers were mainly concerned with subjects of Sanskrit Literature. They are the following:—

1. "Vikramrvasya."
2. "Ratnāvali."
3. "The Sanskrit Drama and its peculiarities."
4. "The Historical Setting of the Malavikagnimitra."

A novel feature of the work of the association during the last year was the organisation of Recitation classes, in which Sanskrit verses were given out from memory by the students. The verses were to be taken from standard authors and any kind of mistake in the recitation resulted in the particular verse being ruled out. These classes were very much appreciated by the students.

On the 20th August 1922, the annual general meeting of the Association was held and new elections for the current year took place. For the good services of Mr. M. Nageshachar, the outgoing Secretary, a hearty vote of thanks was proposed and recorded. The present committee hope to carry on the sound and high traditions of the Association.

K. G. SUBRAHMANYA,
Honorary Secretary.

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THE MAHARAJA'S COLLEGE PHILOSOPHICAL SOCIETY.—An ordinary general meeting of the Association was held on the 2nd of August 1923, for the election of a Secretary. Mr. M. K. Varadarajan of the M.A. class was elected as the Secretary by a large majority of votes.

After the election, the President, Professor A. R. Wadia, B.A. (Cantab.), Bar. at-Law, congratulated the Secretary on his election, and pointed out to the meeting the necessity, advisability and benefit of conducting "Reading Circles" where passages from the Classical Philosophers might be read. This the Secretary hopes to put into execution.

The Philosophical Association has heard with feelings of eagerness about the coming of Mr. Bertrand Russell, M.A., F.R.S., the Mathematical Philosopher, to Calcutta. Dame Rumour whispers that he will be invited by our University to lecture in Mysore and if this be true, our

Philosophical Association will not be slow in its manifestation of reverence and love for a philosopher of international repute.

17TH AUGUST 1923.

M. K. VARADARAJAN,
Secretary.

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THE KARNATAKA SANGHA.—The above Association was started nearly 13 years ago, with the object of bringing together all the lovers of Kannada language into closer touch and to afford them opportunities to improve their knowledge of the language, their oratorical powers and their power of expression in good Kannada. The Association has got on its role members who have shown special talents in music, oratory, painting and many other branches of knowledge.

This year's session commenced on 2nd August, when a set of new office bearers was elected, and the programme for the working of the Association during the present year was drawn up. We hope to have a busy time of it this year. We have already had two lectures by Messrs. K. Rama Rao, (first year B.A.) and Mohamad Ameer (first year B.A.) respectively. Both the lectures were well attended. It is rather disappointing to note that the average attendance is not higher than what it is. We hope that the attendance will improve so as to bring our activities to a more successful close this year.

The first lecture was on 'Union is Strength' (Sangha-Sakthi), when Mr. B. Krishnappa, M.A., presided. Although the subject was a very ordinary one, the lecturer had taken great pains to make it very interesting. The debate that followed was equally interesting. The audience were astonished when 2-3 members condemned the co-operative movement and pronounced it as being a curse rather than a blessing. They tried to support their contention by stating that co-operation as it is obtaining in the co-operative movement of the day, is not the same thing as the 'Union' suggested by the lecture of the evening. The President of the day concluded the meeting with a brief survey of the debate and an inspiring invitation for the hearty co-operation of the members of the Association.

The second lecture was on 'Faith' (Bhakthi) which was delivered by Mr. Mohamad Ameer (first year B.A.) whose command over the Kannada language took the audience by an agreeable surprise. When the lecturer had finished his discourse a large number of speakers came forward and a very keen debate instituted regarding some of the controversial points in the lecture. The Chairman, Mr. R. Rama Rao, B.A., Assistant to the Director of Archaeological researches in Mysore, at the close of the meeting, expressed his pleasure at seeing the students taking so much

interest in Kannada, and speaking so ably in chaste Kannada. He hoped that if the Kannada students of the College took as keen an interest as he had witnessed that day, the future of the language would be quite brilliant. He further said, that the idea of 'Bhakthi' was not a product of the contact with the Christians, as was proved by an inscription at Besnagar recently discovered.

Seeing that Kannada is the language of the country, the Association eagerly expects the hearty co-operation of all the students of the college, irrespective of their second language being French, Urdu or Sanskrit. Will they respond?

N. S. NARAYANA SASTRI,
Secretary.

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MAHARAJA'S COLLEGE HISTORICAL ASSOCIATION, MYSORE.—As the classes were not properly settled for work, no meetings were held in the month of July. But the Managing Committee of the above Association met in the last week of July and decided to have two papers and the Annual General Meeting for elections in the month of August.

An ordinary meeting was held on the 10th August, with Prof. S. V Venkateswara Ayyar, M.A., L.T., in the chair, when Mr. P. G. Krishna Murty read an interesting paper on "The Early Rise of Vaishnavism."

The following is a brief summary of the paper:—

Vaishnavism is one of the most important religions of India. It is the religion of Heliodoras, of the Guptha Emperors, of Ramanuja, of Kabir, of Chaitanya and of Tukaram. The Bhakti religion which recognises Vishnu as the sole God is called Vaishnavism. Vishnu worship is as old as the Rig Veda. But his worship, with the idea of a God of grace, and the doctrine of Bhakti was taught by Sree Krishna in the Bhagavadgita. The new religion flourished well in North India under the name of Bhagavatism, from 5th Century B.C. In the Guptha period this religion spread throughout the Empire. Afterwards it flourished in Central India.

Bhagavatism had penetrated into the Deccan at least as early as 1st Century B.C. The Vaishnava tradition names twelve Alwars or Saints who by their songs inculcated Bhakti and Krishna worship mainly. The Alwars were succeeded by Acharyas who represented the intellectual side as the Alwars did the emotional side. Yamunacharya was the most important of these teachers. Ramanuja, the great prophet of mediæval Vaishnavism, followed the lines laid down by this great apostle.

It is expected that regular meetings will be held hereafter and that more students will take part in the activities. The elections of the Office Bearers for 1923-24 will be held shortly.

N. RANGACHAR,
Secretary.

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The Maharani's College.

As this is the first time for the year 1923-24 we are sending notes to the *University Magazine* it is quite proper, through a little belated, to begin with a record of the bright results of the college at the last Public Examinations.

Sri. C. Amba Bai and Miss Ernestine Loenen deserve great credit for their full success in their very first attempt at the B.A. Degree Examination. They are to be further congratulated on winning a gold medal and a money prize respectively. Two more of our students have also passed in Part I only and they are bravely continuing their studies with a view to take the full degree next year. They carry with them our very best wishes for success.

Our Entrance results have been equally good giving a pass of 66%. One of the successful girls takes a very high first class, though she narrowly missed securing rank among the first five. So our new term began in the middle of June for the University Entrance and on the 1st of July for the B.A. classes with every satisfaction at our achievement in the past and fresh hopes for the coming year.

The several societies and clubs had their presidents and secretaries elected in July and they came into working order early in August. The Debating and the Literary Societies have already met and the others will do so before the end of the month.

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THE DEBATING SOCIETY.—In connection with the Debating Society of the College, the newly elected President, Mrs. Ranganayakamma, M.A., and the members met together in the Lecture Hall on the 7th of August 1923 and Sri. R. Janakamma, a student of the First Year Class, read a paper on “the Sources of Happiness.” The lecturer had tried to the best of her ability to bring out fully the various sources as well as the aspects of happiness and pointed out how ‘duty performed’ is the source of purest and highest happiness. Mrs. Hensman, M.A., who graced the occasion by her presence improved upon the subject by her interesting and instructive speech. The students too took an active part in the debate, and so a hot discussion followed.

The meeting came to an end with a hearty vote of thanks to the President and Mrs. Hensman, M.A.

R. JANAKAMMA,
Secretary.

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LITERARY SOCIETY.—A Meeting of the Reading Club was held on Tuesday, the 14th of August, 1923, when Professor B. M. Srikantiah, M.A., opened the Literary Society for this term with his lecture on *Keats*. All the professors and the students of the college were present and highly appreciated the interesting address. As we had intended to make a study of Keats in our circle for this term, this initial lecture was very helpful in opening for us with a Golden Key the realms of beauty of Keats' imagination. The students were very grateful to the Professor for sparing them some of his time in giving this delightful address.

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THE MYSORE UNIVERSITY MAGAZINE

DECEMBER 1923

EDITORIAL.

A GREAT MYSOREAN.—The demise of Rajasevadhurina Sirdar Sir M. Kantaraja Urs, K.C.I.E., C.S.I., has deprived Mysore of one of her most distinguished sons, and this at a time when the advice of a tried and wise counsellor would be of inestimable value. In recent years Mysore had not experienced such a sincere outburst of public sorrow as that occasioned by the sudden news that the Sirdar was no more. We have a special reason to add our humble tribute to the chorus of praise that has been filling the papers, for he was the most distinguished alumnus of the Maharaja's College, and he was a member of the Government when in the midst of much opposition the University of Mysore was ushered into existence. It was but five years ago, that he presided over the Maharaja's College Day celebration and showed how, despite his honours and busy time, he cherished deep feelings of love and respect for his *alma mater*, which may well claim no mean share in having moulded the destinies of the Sirdar. And it was but two years ago that he unveiled the portrait of his old *guru*, Munir-ul-Talim Mr. H. J. Bhabha, in the Maharaja's College Hall and spoke of his revered *guru* in terms, which redounded to the glory of the *guru* and the *chela* alike. In spite of his wealth and influence, from the first to the last, the late Sirdar succeeded in preserving a simplicity of manners and cordiality of heart which won him the respectful admiration of all who came in contact with him. But with a softness of heart he combined a rigidity of purpose, a courage of his convictions, and a stern devotion to duty, which would always remain an inspiration to his countrymen and most of all to the students of his old college he loved so well. His worth and work could be recorded in no better way than in the immortal words of Chaucer.

“He was a veray parfit gentil knight”
and his memory deserves to be fostered and perpetuated in our University by his many friends and admirers in some tangible form.

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THE UNIVERSITY CONVOCATION.—It is a very happy dispensation that at least once a year the educated public of Mysore is brought into touch with some gentleman of outstanding eminence, invited to deliver the Convocation Address. The choice of Sir P. S. Sivaswamy Aiyar, K.C.S.I., C.I.E., for this year's address raised hopes, which have not been disappointed. It was a lucky accident that at the inception of our University, the Madras University had such a sympathetic Vice-Chancellor as Sir Sivaswamy Aiyar and his words of encouragement in the eighth year of its existence are a solace in the midst of present difficulties as well as a call to all concerned to see that the promise held out eight years ago will be fulfilled as best as it could be. Sir Sivaswamy's address was the utterance of a man of affairs and of broad sympathies. He brought out very vividly the connection between a university and life in general, and brought out as vividly the want of that intimate connection in India, a circumstance which perhaps explains the sense of aloofness generally presented by the educated classes and the emergence of the ideal of national education as a sort of inevitable reaction. But national education in a country of many castes and creeds and languages like India is not an easy problem, and where it does not end in a reactionary spirit it takes on a mere political tinge of being opposed to the state-aided or state-recognised schools and colleges with no real difference in the courses or methods of study. The dilemma of national education was well brought out by Sir Sivaswamy in telling words:—"The complete adoption of the Western ideal looks like treachery to one's own country and disloyalty to the spirit of the nation and of the past. On the other hand, a stolid adherence to old ideals and a refusal to assimilate what is best in the culture of the West is a handicap in the struggle for existence." Some sort of compromise is needed and yet any compromise is impossible of attainment, unless there is a compromise in the very ideals of life. Unfortunately instead of an assimilation of ideals, Eastern and Western, there has been a deliberate pursuit of "a life of double personality." This is an old well-recognised fact, but Sir Sivaswamy has rendered a distinct service to his country by utilising a university platform to drive home a truth, which has made cowards of many an Indian. It is nothing short of a moral tragedy in this country that the same people could speak in different voices from different platforms. The man who speaks of Indian nationalism as a truism does not hesitate to speak of a North Indian as a foreigner in South India, and a Sindhi may find himself treated as an outsider on the banks of the Ganges or the Cauvery. And likewise a man who trumpets forth the inherent rights of womanhood in Social Reform Conferences thinks it a better part of valour to marry his own daughters at a prematurely early age or to let his widowed daughter

live in compulsory widowhood the rest of her weary life. Half the failures of social reforms may be safely put down to that "double life led by many an Indian inside his home and outside." With a delightful sarcasm Sir Sivaswamy exposed this weakness of Indian society, and with the instinct of a born educationist and a statesman, he put his finger on the root cause of this evil, the ignorance of woman, and as he said; "there is no other way to get rid of this double life than by the education of woman." The atmosphere of an Indian home has been often spoken of as idyllic, but Sir Sivaswamy does not mince words when he brands it as "an atmosphere of racial childhood." Few Indians can afford to doubt the simple truth that the salvation of India lies only in the enlightenment of her womanhood. Many who think of female education only in terms of vernaculars do not adequately realise the gulf that generally divides the intellectual life of an Indian husband from that of his wife, and it is this perhaps which explains the comparative failure of the Women's University at Poona, and this in spite of the selfless exertions of a veteran educationist like Professor Karve and a generous response on the part of public benefactors like the late Sir Vithaldas Thackersey. A few months ago, presiding at the last annual meeting of the Women's University, Sir Hormusji Wadya very candidly said that English language and literature could not be given a very subordinate place in any curriculum so long as English remained the *lingua franca* of the Indian intelligentia. Sir Sivaswamy's advice points to the same course. He does not advocate female education "necessarily on identical lines with that for men (except of course for those who intend to follow the learned professions)." He is rather for an education "appropriate to the sphere of their duties and functions at home and in society." What is really important is the creation of an intellectual atmosphere common to both men and women alike, and it is only then that social reform and political reform will alike be realities and not exotic growths. It is only then that the reproach of a double life will disappear and the dawn of a new era swim into the horizon of India.

Among other important points to which Sir Sivaswamy referred may be mentioned the utilisation of the Indian Institute of Science by the graduates of the University of Mysore, and the formation of a training corps. Neither of them is a question of negligible importance. It is only the demon of finance that stands in the way of a training corps, and perhaps in the near future it will be possible for the Mysore Government to come to some understanding with the authorities of the Institute whereby its laboratories may be thrown open for the use of the M.Sc. students of our University. This will be some tangible return for the vast sums that the Mysore Government has been generously giving to the Institute.

Sir Sivaswamy Aiyar's address and especially his words of exhortation to the new graduates, we trust, will be taken to heart by all concerned ; for, at a time when men's minds are unsettled and extreme views are mistaken for wise views, a free and frank and sane expression of India's needs is a public service, which cannot but be expected from a man of his wide culture and varied experience in more than one field of public activity, and Mysore University will long remember his Convocation Address.

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THE REPORT OF THE S.S.L.C. COMMITTEE.—The weakness of secondary education in India has been a notorious fact, and we ourselves have had on more than one occasion cause to point out the defects of secondary education in Mysore particularly. The public and the authorities alike in Mysore have been also conscious of these defects, and this in itself argues well for the future. Last year a large and representative committee was appointed to revise the S.S.L.C. courses and curricula with the Inspector-General of Education in Mysore as its Chairman. The Report of the Committee has been before the public for some time, and few would care to deny that on the whole it shows both labour and thought and entertains many sane views. By far the most important resolution is to abolish specialisation in the High School Course. This return to educational sanity cannot be too highly praised, and when it is finally approved it will constitute an important step towards a better and more efficient university training. The Committee recommend a training in English, a Second Language, Mathematics (Arithmetic, Algebra and Geometry), Elementary Science (comprising Physics, Chemistry and Physiology), History (Indian and English) and Geography. It would be a question of detail whether an equal emphasis should be placed on the study of all these subjects or whether some of them are to be regarded as main and the others as subsidiary subjects according to the scientific or humanistic bent of the students concerned. There is much to commend this plan, but it will inevitably tend to be costly, and such a bold attempt to meet individual requirements without sacrificing culture may ultimately break on the rock of finance.

A genuinely novel feature of the Report is a recommendation to have non-examination subjects one of which is to be studied compulsorily by all. They are divided into the two broad classes of Technical and Industrial subjects. The former comprise drawing, music, printing, short-hand and type-writing, book-keeping and commercial accounts, precis-writing and business correspondence, and pedagogics.

The latter comprise electrical wiring and fitting, carpentry and cabinet-making, printing and book-binding, smithy, mechanical shop and fitter's work, pattern-making and foundry work, weaving and agriculture. That our boys need a training other than a purely literary one is brought home to all by the greater and greater unemployment of the educated classes, and as a matter of simple economics many other avenues of employment have to be provided. But it is difficult to see how a training in all these subjects—especially the industrial ones—can possibly be arranged in all schools, and yet unless this is done the utility of the suggestion is bound to be affected. It would be interesting to see how much this plan would cost and how it would work in actual practice, for it marks a radical departure from the current notions of secondary education in India. We have no doubt it will be an experiment which will be watched with keen interest by the rest of India. We are not sure that it would not be better perhaps, because less costlier, to have just one or two polytechnic institutions in the State, where the Industrial education may be carried on in a more concentrated form. As things are, we are rather inclined to agree with Prof. B. Venkatesachar's overruled fear that there will not be time enough to ensure efficiency in all the subjects: examination and non-examination, and that it would be better to cover less ground but with greater efficiency.

Another noteworthy feature of the report is the fine stand made against indiscriminate promotion, a most mischievous educational "reform" which has deservedly exposed Mysore to a good deal of criticism. Compartmental system is hardly intrinsically desirable at the stage of school education, but the Committee has approved of it, provided a candidate gets 40 per cent in the total of one group.

Physical education is made compulsory either in the form of drill, scouting or sports. For the last, membership of a sporting club is recognised in lieu of want of sporting facilities in a school. But after all the chief burden is bound to fall, and rightly too, on the schools.

A sub-committee of the Committee made itself responsible for the interesting suggestion that Saturday should be a full holiday. The Committee while recognising its cogency find themselves unable to accept the suggestion, and recommend the present practice of holding morning classes on Saturdays. Researches in Experimental Psychology rather go to favour the idea of two holidays in a week, but it is doubtful if these two should be Saturday and Sunday. It is surprising that in spite of the extreme vogue of Jesuit institutions in India their general practice of closing their schools on Thursdays and Sundays has not found any imitators. The educational eminence of Jesuits is beyond dispute, and there is a great psychological force in their practice. Two consecutive

holidays are apt to encourage laziness, but a break in the middle of the week is invigorating to the young minds, while it would afford the teachers extra time for correction of exercises, a work which at present tends to be rather shirked to a dangerous extent. Even if the general educational opinion does not favour an absolute holiday in the middle of the week, it would be educationally most sound to set it apart for light debates, sports and some purely industrial activity.

It is hardly to be expected that the Report will not go through a certain amount of modification through the criticism of the public or bodies like the Senate. All the same, the Committee deserve to be congratulated on after all producing a report which will focus public attention on secondary education, the notoriously weak link in Indian education.

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KERALA vs. TRAVANCORE UNIVERSITY.—It was a happy thought on the part of the Editor of the 'Ernakulam College Magazine' to devote practically the whole October number to a free and frank discussion of the Kerala University question. The opinions presented are very varied as to the location of the University, though practically there is a unanimity about the desirability of having a new University, provided its financial stability is guaranteed. The project of a University for Travancore is of some standing now, but the Travancore Durbar has not been unwilling to consider the question from the wider Kerala standpoint. The Rev. W. E. S. Holland, Principal, C. M. S. College, Kotaiyam, puts the case well when he says: "Pool all your resources in one centre and you may get something worthy. Continue the affiliating system, and no great advance on the present low level of University education will be possible." From every standpoint the idea of a Kerala University has much to commend it. It will cover a wider area, economically and intellectually, and with greater financial resources it will command improvements beyond the means of a University of Travancore. But there are immense practical difficulties in the way, which it would not be wise to wink at. A Kerala University would have to be dependent on three distinct sources of income: the Governments of Madras, Travancore and Cochin. In what proportions are they to contribute? It would be manifestly unjust to expect Cochin to bear as heavy a burden as Travancore. If the contributions are unequal, will the three parts of Kerala also expect proportionate returns as regards the admission of students, administrative powers and allocation of posts? Furthermore, a rigidity of contributions may affect the future development of the University, while we

have no doubt that as things usually are in India, practical difficulties of a personal character will arise which will be all the more accentuated for want of one final central authority, and if every important University question were to be left to the mercy of three governments with often divergent interests, the prospect is by no means so enticing as the rhetoric of many would have us believe.

Even if all these difficulties could be tided over with a not impossible spirit of fair play and give and take, we cannot but deplore the spirit which seems to actuate many in favouring a Kerala University. It is based on the idea of an ethnic, linguistic and geographical unity of Kerala, with a corresponding emphasis on Malayalam and an exclusion of Canarese or Telugu elements. We might have hesitated to put forth our views as bluntly as we do, did we not find that some of the gentlemen, who have contributed to the symposium in the 'Ernakulam College Magazine,' have faced the question boldly and have not allowed themselves to be carried away by popular shibboleths. Mr. S. Ranganathan, M.A., I.C.S., writes: "Is there a culture peculiar to Kerala and common to the Pattar, the Saraswat Brahmin, the Syrian Christian, the Jew, the Moplah and the proper Malayalee? Clearly, the Pan-Kerala University cannot pursue one cultural ideal to the exclusion of others." Mr. S. K. Yegnanarayana Ayyar, Professor of English, the Pachaiappa's College, Madras, writes even more emphatically. We cannot resist the temptation to quote him at length. "In my opinion, too much has been made of the so-called cultural unity of the West Coast. What, in the first place, is the common ground between the fanatic Moplah of Malabar, the depressed but aspiring Thiya, the orthodox Nambudri, the clever and adjustable Pattar Brahmin, the aristocratic Nayar, the progressive Syrian Christian, and other Indian Christians, not to speak of the Jews, Gujaratis, Fishermen, Cherumas, Pariahs, Pulayahs and the aborigines of the mountains? Except the gifts of nature, *i.e.*, the mountains and the lakes, the monsoon and the cocoanut, there is very little in common. If we exclude the socially and culturally backward classes and confine our attention to Brahmins, Nayars, Thiyas and Christians, what is the common element even here except it be the language of Malayalam which most speak and all can use and understand? Taking that as common basis, what is the culture preserved and transmitted by that medium, a culture which has distinct characteristics of its own? Except *Thullal* and *Attakatha*, which it is highly doubtful whether the Thiya and the Syrian Christian understand or appreciate, there is nothing exclusively Malabarean about that culture. That culture is only a fragment of the vast Indian culture or Hindu culture and is important only to the extent it has its roots in

that part. It is true that some departments of that culture, *i.e.*, astronomy and medicine have been kept pure and have been even advanced; but that must be taken as Malabar's contribution to Hindu culture and not as constituting a separate West Coast culture. Secondly, this question of common language and culture does not affect the University questions at all except very slightly. Because the language of instruction in the new University is not going to be Malayalam but only English, and as the admission within the portals of the University is not going to be confined to those only who could appreciate the famous twin stars Thunjan and Kunjan of the West Coast literary firmament and because the study and interpretation of the so-called Malabar culture will be but one department of studies in the future University, the subject of cultural unity need not be made so much fuss about."

Would that every Indian would look at India as a whole and not be continually hugging to his bosom the idea of some narrow corner of India where he happens to be born! Historians in the future will not dare to deny that the India of to-day is the product of English culture, whatever may be the defects of English administration. It is through English we have learned to love India and things Indian with a passionate zeal and the culture of India is an object of far greater veneration than the culture of Kerala or Bengal. And the culture of India can only be developed through common ideas spread broadcast through the medium of a common language: English for the present, Hindi or Urdu, let us hope, for the future. The Osmania University is already occupying a somewhat isolated position in the educational world of India, but perhaps it has a good deal to be said in its favour as Urdu stands a fair chance of becoming the *lingua franca* of the whole of India, as Malayalam or Telugu or Canarese can never hope to do. Papers like the *Madras Mail* have been fond of jeering at Mysore for the "splendid" opportunity she has missed to develop a Canarese University. But the powers that have shaped the destinies of Mysore University have been actuated by sound instincts conducive to Indian unity and the interests of India as a whole. The need for a United India is an infinitely greater need than the need of fostering vernacular literatures. The former makes for a national India, the latter for a divided India with her age-long internal jealousies and conflicts. It is amusing to find how the very gentlemen who cry out for a Kerala University ingeniously argue against the inherent claims of Trivandrum as the centre of that University, forsooth because Trivandrum is the capital of Travancore! It has been the tragic misfortune of India that Indians cannot easily rise above their petty local or communal stand-point. English has acted as a brake on that tendency and any movement that tends to work against it is a move-

ment inimical to the highest interests of India as a unit, cultural, economic and political. By all means let us have as many Universities as possible, but let them not be founded on parochial considerations. Let each one of them look beyond its own narrow boundaries, for the highest literature or philosophy or science knows no national or local boundaries. Vernaculars have a right to develop, but not at the expense of Indian unity.

We are inclined to think that there is ample room for a University of Travancore, which is likely to work more efficiently than a Pan-Kerala University with its profit and loss account of how much shall we give and how much shall we take? And even if the Kerala University comes into being, we trust it will be organised on an Indian and not a provincial basis. Let the divided India of old be only a forgotten nightmare.

In the course of the symposium we have been amused to find scattered references to Mysore University, but so wrongly informed that it is not worth while taking the trouble to deal with them. The troubles of the Mysore University have been mainly due to unforeseen and unforeseeable series of financial difficulties. It would be ungenerous to mistake an accident for a rule. Let it not be forgotten that the institution of Mysore University has given an impetus to higher education and filled our colleges with numbers, which would not have been possible with a continued affiliation to a distant step-motherly University. Even if the market value of a degree is its only desideratum, we have no reason to repine, for many of our graduates are earning an honourable living far beyond the confines of the State and if the champions of a Kerala University imagine that its graduates will be greedily absorbed one and all in every nook and corner of India as soon as they leave the portals of their University, it would be perhaps cruel to disillusion them at this stage, but they will soon be sobered by the logic of facts. And if Kerala graduates are only Kerala graduates, their market value beyond the confines of Kerala, will be ruinously low. In the past isolated colleges have been a great hindrance to the educational advancement of India. But isolated Universities will prove a far more disastrous curse to the highest political and cultural interests of India: a land of infinite resources and infinite promise, and yet a land of unredeemed promise, thanks to the short-sighted jealousies and conflicts of her children.

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ADULT EDUCATION.—Bombay deserves to be congratulated on the praise-worthy lead she has taken in establishing the Adult Educational Association of Bombay. In March 1922 a few friends met in the house of

Principal John Mackenzie, and a Committee was formed with Dr. Harold Mann as Chairman and Principal Mackenzie as Secretary. Those who have had the privilege to know the immense push and go of Dr. Mann may well have taken it for granted that a Committee with him as Chairman was bound to show work, and so it has. The Committee felt that "there was a large field for educational work on the University level among important sections of the people, such as clerks and other subordinates working in commercial firms, banks, Government offices, workshops, factories, etc., who had no opportunity of receiving University education and who might have a desire for knowledge, information and culture." In July 1922 classes began to be conducted by some professors for the teaching of Economics, Indian Administration and Browning's Poems. In November further classes were formed, and the response was sufficiently encouraging to lead to the formation of the Adult Educational Association. The trustees of the N. M. Wadia Charities have already contributed Rs. 1,000 towards the expenses, and once the Bombay millionaires take kindly to the movement, as they ought to, the financial aspect of the movement need cause no anxiety. Movements of this sort have been flourishing in the West, and their very success shows its necessity. Work of this kind undertaken so systematically now in the different parts of Bombay has been done for the last thirty years on a limited scale by the Students' Brotherhood, founded by the well-known educationist Prof. N. G. Welinker, now in Deccan Hyderabad, and fostered by the late Sir Narayen Chandavarkar. The Sunday morning classes of the Brotherhood have long been well-known and fairly successful.

The subject is of no less importance in Mysore than in Bombay. The Senate has already approved of the idea that professors should deliver popular lectures in different subjects and it has been already seriously suggested in some quarters that instead of having merely popular lectures, which may or may not be well attended, definite popular classes should be formed, provided people are forthcoming with a definite promise that they would regularly attend the classes and show some work. That there are many in Mysore who would benefit from such courses can hardly be doubted. Whether they will whole-heartedly avail themselves of convenient opportunities is an open question. But we are confident that the members of the staff of our University will not be slow in being of use to the non-university public, and it is time that the problem of adult education is seriously tackled in this State. It would be a pity if this movement were ever confined only to Mysore and Bangalore. Perhaps the District Headquarters in their isolated situation are in more urgent need of some intellectual stimulus, and a University which aims at fostering intellect in the whole State cannot and

should not give a step-motherly treatment to important cities other than Mysore and Bangalore. In framing a scheme of adult education, it would be well if Dr. Mann's words are kept in mind: not to encourage mere lecturing, but to see that "the classes should be more in the nature of conversations, where plenty of time is spent over discussions, over difficulties raised and points of special interest." Nor are the words of the Hon. Mr. Lallubhai Samaldas in this connection any the less noteworthy: "If we are to succeed, the teachers we should secure must be such men as will work on a basis of fellowship and comradeship with their pupils." The bane of Mysore is a narrow parochialism, which militates against the spirit of the age and ends in a cramping of sympathy and a stunting of intellectual freedom. A University by its intercourse with the life of the people both enriches itself and them, and anything that tends to further this intercourse deserves the active sympathy of the government and the people alike.

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THANKS WHERE THANKS ARE DUE.—With this number is completed the seventh volume of this journal and with it also ends the year of our editorship. By the time the University recommenced its work after the Dasara holidays, Professor J. C. Rollo had returned to his duties to the great delight of his colleagues and his students. His absence, though comparatively short had created a void in the life of the Maharaja's College, and this journal has been anxiously waiting to return to his experienced veteran hands. But before we lay down our burden, we must hasten to thank those friends and colleagues, whose co-operation alone has enabled this journal to maintain its standard. We shall frankly confess that when we undertook the task of editing, we did so with a heavy heart and a chilling diffidence. But in actual practice the burden was felt to be light, and only for this reason that our appeal for co-operation to all our colleagues of the various constituent colleges of the Mysore University met with a most ready and cheerful response. Nor did our appeal for more subscribers fall on deaf ears. Our special thanks are also due to professors of sister Universities like those of Calcutta and Madras: Professor Radhakrishnan, Professor Krishnaswami Aiyengar and Mr. T. K. Duraiswamy Iyer for their valued contributions in the shape of articles and reviews. Last but not least, our best thanks are due to Mr. B. Srinivasa Iyengar of the Government Branch Press, Mysore. His unfailing courtesy and promptness of work may have often been taxed by our editorial dilatoriness, but the punctual appearance of the issues this year was never allowed to be affected either by our delay or pressure of his other work. We wish this journal a long and prosperous career.

A TRAGIC RAVANA.

I

I HAVE often pitied poor Rāvana. His is no doubt a cursed name—*Loka-kantaka*, Scourge of the world—handed down the ages, branded—and who knows, wounded, none so human as to waste some sympathy on the Demon-Monster. Rishi and poet, Pourānik and dramatist, the Saint in the rapture of Bhakti and the Prakrit or vernacular minor or major versifier in ecstasy borne on the swelling tide of devotion, the Dāsa who spins out his Hari-Katha, and the village Bottom who roars you in Ercles' vein—all, all have conspired to stamp on the imagination of India a repulsive Rāvana, the terrible Rākshasa, the mighty Asura, ten-headed monster, cruel Devil, incarnation of the wicked principle, enemy of Gods and men, harasser of saints and sages, destroyer of sacrifices, violater of women—all have but one name to give him “Rāvana, thy name is Evil.” It is all very edifying, impressive, sublime, undoubtedly. Black against white, evil against good, monstrosity against beauty, a simple law of contrast, the very trick of the early artist and primitive preacher of morals. Rāma and Rāvana! All is said. And now look on this picture! Charming boy, obedient son, loving brother, loyal husband, chivalrous prince, fearless warrior, merciful enemy, lover of truth, soul of sacrifice, beloved by subject, beloved by all—Rāmachandra, Rāmabhadra—perfect Man, nay, is he not perfect God? And between Rāma and Rāvana, Sīta: to name her is to praise her, to call her blessed. Not in vain was Vālmīki hailed Rishi, Adi Kavi, Holy Saint, Father of Poets: and he wept for a shot bird! And in his wake, with whatever touches of individual genius, variety of incident or modification of character, not in vain, have followed Bhāsa and Kālidāsa, Bhava-Bhūti and Tulsi-Dās. The typical contrast between God and Satan, hero and villain must remain. To the devout and orthodox imagination, it is final—and the only excellent way for the artist.

And yet modern imagination feels that a different treatment is possible, perhaps better, more impressive, more appealing. Versions of the Rāmāyana are legion: but they have been one-sided, monotonous. And then, are there not some puerilities, folk-lore supernaturalisms, dogmatisms (save our soul!)—that Vālmīki, to give great genius the

benefit of reverence, could not avoid, because it was in the story ? Or which others, less gifted and more 'pious' have foisted on him ? And which, once *heard*, *remembered*, and *written*, no truly national poet could help carrying on ? How it all grew, one cannot now know; the riddle of the Rāmāyana is still unsolved. Was it a harvest ritual of the Corn Spirit, some Indian Rape of Persephone ? Was it a Nature-myth, conflict of Light and Darkness, Spring and Winter and so forth ? A nugget of poetic metaphor and twisted text, hammered into gold ornament by bards ? Or hero-worship round the tomb of a great ancestor, deified and danced out ? Was it something more mundane—a historic conflict of tribes, of creeds, of ambitions of passionate kings and priests—a Vasishtha and a Visvāmitra, an Emperor of Lanka and an Aryan king with allies of Dravidian India ? Buddhists have their Jātaka story, of the pious prince who for truth's sake went into exile ; Jains have their version of Sīta and her brother Prabhāmandala who loved her in ignorance, and repented on being enlightened and fought for her with Rāma at Lanka ; Western scholars have suspected the influence of Homer and his Helen of Troy, who launched a thousand ships and was well worth it. Allegorists have been busy, too. Rāma is the Universal Soul, Sīta was not stolen but her phantom (Helen, again), Rāvana was a *tapasvi* encompassed by Māyā, whose killing was *Brahma-hatya*, sacrilege, and all was *Lila*, Divine sport; explaining away awkward human weaknesses and faults embedded in the Sacred Book. So many minds, influences, environments, at work on this world-great epic story !—all directed by one dominating idea—the ideal Rāma and the Demon Rāvana. Could not some independent poetic imagination look at it from some other point of view : remove the childish, clarify the beautiful, direct the sympathy with more critical, psychological and balanced poetic vision ? Cannot the Indian mind get out of the groove of Tulsi Dās, for instance, whose Vēdānta floods his poem with theological discourses and hymns to the Deity, whose Bhakti perverts so many natural incidents and human foibles as foreseen or put on or mere Māyā, and compels even the Rākshasa heroes to cry out 'Rām' as they die so that their soul may be absorbed in the Universal Principle ? The great Hindi poet has quite a book to spare to dilate on a Saint Crow, Kāka Bhusundi, (not the Kākāsura who worried Sīta), who lives through the ages, eternally singing 'Rām, Rām,' at whose feet even Siva and Garuda go to learn the Māhātmya of Rāma ! And he has no emotion, no imagination to spend on poor Rāvana, 'filthy and sensual monster' as he dubs him. Verily, he has his reward ! Splendid his Rāma is, his Rāvana not splendid, and children of poetry who are also children of pity can only turn away from him disappointed.

II

So, I come back to the feeling that poor Rāvana is 'wronged'—aesthetically—as the fair Briton of Heine said of Shylock the Jew. Yes, Shakespeare. Have we not known, and enjoyed Shakespeare's broad humanity, his sanity, charity, impartiality, even his hedging and leaving things in the twilight—so unsatisfactory to the mere doctrinaire moralist, as the late Prof. Raleigh has declared? Shakespeare knows no black and white saints and devils: 'Life is a mingled yarn, good and ill together.' His Macbeth is a fiend, and an instrument of darkness, wading from blood to blood; yet he loves his wife, and a fair name, and longs for 'honour, love, troops of friends,' has no use for 'mouthing-honour,' and vainglory. He agonises: Lost, no more sleep, 'I have sold mine eternal jewel to the common enemy of man!' Even puritanical Milton has sympathy and insight into Satan who, in spite of his pride and unconquerable will, remembers his life in heaven and pines for lost virtue, pities the poor victims, and his own misled, ruined followers. Haven't they said that Milton set out to justify God, and ended by making Satan his hero? Such a sympathetic treatment of the character of Rāvana it is perhaps idle to expect in the ancient and the medieval Hindu atmosphere of India. From an independent and critical writer, however, such a thing was possible. indeed, it has been done. Not quite with the freedom of a Western poet, perhaps, yet sufficiently distinct to arrest the attention and to refresh the imagination of a reader who longs for a new, a tragic Rāvana.

Let me present the writer: Nāgachandra, commonly known as Abhinava Pampa, a Jaina poet who flourished in Mysore at the court of Vishnuvardhana, the great Hoysala, about 1100 A.D. In his *Ramachandra-Charita-Purana*, generally called *Pampa Ramayana*, he has left the beaten track and as though he was in deliberate opposition to the Brahmin version, re-handled the character of the great antagonist of Sri Rāma in a more natural and sympathetic spirit. Being himself an Indian, he has not done his work in a spirit of daring and defiance; but it is enough: there is no mistaking the note of tragedy that he has struck. The passion and the crime are there: they are not minimised, but other things are there too: good qualities, a rich nature, nobility, aspiring soul ruined by Fate and frailty, and death redeeming in its remorse and repentance.

Considering the weight of tradition, and the tastes of his audience, one may be permitted to wonder how he came to do it. He writes as if he were Rāvana's court minstrel. Yet, he was a religious writer: anxious to extol Rāma and hold up a model of piety and virtue, which also he has done, whole-heartedly. What led him—would it be impertinent

to say, betrayed him—to do justice to Rāvana also? Was it his independent Jaina point of view, or Jaina tradition preserving a human Rāvana, not a mere hateful idea? Was it a desire to revise and correct Vālmiki and his echoes, leaving God out of the picture and so the Devil, and insisting that destruction of sacrifices is not exactly a sin, and the man who did it had probably something in him? Was it a more refined, romantic and rational idea of the marvellous and the sublime, a taste that recoiled from cannibals, monkeys, mountain-bridges and burning tails? Or, a deeper grip on the art of preaching and illustrating the Law of Karma: in human environment, the characters, whatever supernatural powers they might acquire by Tapas, remaining actual men and women: and so appealing like humanity to us: making us feel 'There but for the grace of God, go I'—or 'What he can, I can'? In conceiving Rāvana, did Nāgachandra think of some old Jaina shrine so beautifully carved out of soft marble, with its noble spire,—and the little chanc-sown seed, sprouting in the rainy season, pushing down its roots, and in the ripe hour, shattering the spire and the pendants and the friezes till the noble edifice is a heap of ruins, wherein the serpents come and dwell? Perhaps he had a sense of history. living at the court of a great king, he knew of alliances and conflicts and could get a real historical background for his epic war. It is even probable he had some personal experience, or some contemporary social scandal and calamity to set him on the right track and give him the key. So his poetic eye was purged of convention and dogma and the hard, cold, age-hewn rock of colossal Rāvana put on flesh and flushed with warm blood, breathing. And so has Abhinava Pampa, one of our great poets in Kannada, given us a new romantic Rāvana to contemplate, as a relief from the mechanical classical type.

III.

In disengaging the character of Rāvana as Nāgachandra has conceived it, from the vast mass of Jaina incidents and ideas, episodes, pseudo-historical details, and constant variations or modifications of Vālmiki Rāmāyana, I shall try to set forth in clear relief only two things. First, the historical background, against which is set the great king of Lanka, with his heroic and softer qualities; that won for him the respect and awe of men. And second, the one grand passion of his life, which he pursued in the blind security of supreme power, heedless of counsel, indeed made obstinate and reckless by advice, tortured by shame, and miserable, until his eyes were opened to the grandeur of a true woman's love and the degradation and folly of his own sin; but his pride would not let him recant and submit, so he drove on to his doom. From the poem itself, I shall quote enough to support the view

I have taken; also because I wish the reader to feel for himself the grace, the lucidity and the weight of the style of Nāgachandra, whom I have loved now for over twenty years.

As the poet sees it, far away in the North is Ayōdhya or Kōsala ruled by kings of the Solar race, one of whom, Anaranya hears of Rāvana's conquest of Māhishmati and abdicates in favour of Dasaratha a month's child. And in Videha or Mithila reigns King Janaka. There was a prophecy that Rāvana would die of Dasaratha's issue on account of Janaka's daughter, and Vibhīshana (the Vishnu Bhakta of Vālmīki) sends murderers to make things safe. Nārada warns the two kings, who escape by leaving painted images behind, which are duly beheaded! So early in the poem is the main motive, the fate of Rāvana announced. This is the prophecy:—

ଏନୁଂ ତୋଦଳ୍ଲଦୁହବ ତ
ରାନ୍ଧିରାକୁରଂ, ଏଭିଜ୍ଞଣ, ରଣଦୋଷ ।
ଜାନକିରୁ ଦୂରତ୍ୱଂ, ଲଂ
କାନାଥଂ ଦାତରଧିଯୁ କୁର୍ଯ୍ୟାଶ ମୁକିଗୁଂ ॥—(III. 23).

on which Vibhīshana argues—

କାରଣିପୁଣନ୍ମେ କାର୍ଯ୍ୟିପୁଣନ୍ମୁହେ ? —(III. 24).

' Remove the cause and you remove the effect.'

And the poet comments, grimly:

କୂଳରାପର ନାୟଦରଂ !
ପରାଷଦୋଷ ବିଧିଯୁ ବରଦ ଲକ୍ଷ ଜଲପିଯୁ ? —(III. 24).

' Who can kill those who are not to die?

Is the writing of Fate on the forehead written in water?'

In Middle India is Ratha-Nūpura-Chakravāla, capital of the Vidyādhara or Khēchāra kings, (who by their magical powers could fly in the air). Indra, its monarch is ousted by Rāvana from overlordship of the South. Prabhāmandala, Sita's brother, who later joins Rama's army against Rāvana is an adopted heir of the Vidyādhara king. Lower down, we come to Kishkindha, and in the ocean lies Lanka. Bhīma Rākshasa of Lanka adopts Toyadavāhana of Rathānūpura and from him proceeds the Rākshasa Vamsa. (Here is a reminiscence of colonisation from the North). The Kishkindha princes are Vānara Vamsa, because they have a monkey flag (X. 117 Prose) like the Kadambara kings of Banavāsi. Marriage alliances and complicate wars confuse the previous history narrated of these three dynasties of kings—those of Ratha Nūpura, Kishkindha and Lanka. Rāvana, for instance subdues Indra and sets up Sugrīva's father on the throne of Kishkindha, who abdicates in favour of his eldest son Vāli. Rāvana desires the hand of Sri Prabhē, Vāli's sister. Vāli is spiritually minded and

dislikes Rāvana's airs—an upstart 'Kaiser.' He becomes a sannyasi and leaves it to Sugrīva to give away the bride. Rāvana, says Vāli is ମଦାଂଧି, ଲାଦୁତ, insolent and proud; I cannot give him my sister; if I fight, people will say I have broken the old alliance between the two Houses.—

ଅଦୟିଂଦାତଂଗାନ୍ତେ

ଯୁଦ୍ଧ କହନଂ, କାଳିଗର୍ଜୁ ମେତ୍ତାର ପଲକା ।

ପଦ ରାକ୍ଷସପାନରଚଂ

ତଦ ନାହିଁ ନିର୍ଦ୍ଦେଶଦୁର୍ବଲୁଦୁ ରୋକଂ ॥—(X. 172)

Other princes subordinate and allied to Rāvana are: Khara of Pātāla Lanka, who has married Rāvana's sister Chandranakhi (notice the softening of the name Sūrpanakhi) and is, so to say, Viceroy of the Frontier Province; it is by conflict with him in the outposts of the Empire that war is kindled between Rāma and Rāvana. And Hanumān, prince of Hanuvara Dvipa, who is married to Sugrīva's cousin and Rāvana's niece and has been given a separate kingdom in addition as dowry. There is an air of verisimilitude in this fictitious account of the subject kings of Rāvana's Empire.

A full account of Rāvana himself and his prowess is given by Sugrīva's old mentor Jāmbūnada to Rāma and Lakshmana (Canto X). He is born in exile: his face is reflected in a nine-faced jewel, an heirloom of the Rākshasa family coming down from Bhīma the progenitor, and so he is called Dasamukha (again, a refinement on the ten heads and twenty arms!). His brothers are Bhānukarna and Vibhishana. They all practise Tapas, acquire celestial swords and miraculous powers by 'Vidyās,' and recover Lanka from Vaisravana, who flies to Indra. Rāvana marries Mandodari and crosses the border like Alexander and Caesar after him, (and Fair Lesley in Burns's poem) 'to spread his conquests further.' We have seen already his dealings with Indra and Sugrīva and others. He defeats Yama, Varuna, Nalakūbara, and Sahasrabāhu (in Vālmiki this is Kartavīryārjuna who is the victor not the vanquished. Does not Pampa also save his hero from dangling in the arm-pits of Vāli like a poor worm?) On his way back his Vimāna stops over the hill of Vāli's penance, and here (as in Vālmiki's account of lifting Siva's Kailāsa) Dasamukha gets his name Rāvana. He returns to his island home, having built up an Empire south of the Vindhya, much like the British, by alliances, victories, restorations, and wise and firm handling, and generous dealing, when generosity pays, and a certain integrity of character which cannot but command respect and sympathy. He is a Khēchara and a Vidyādhara (flier in the air and master of magical arts and weapons—in 20th century parlance, had

airships and poison gases and sundry other scientific inventions); a Jina Bhakta, with a fine Sāntisvara temple in his capital and many Chaityas all over his kingdom:—in short he is ‘Dakshina Bharata Chakravarti’ Emperor of Southern India and well deserves the enthusiasm of Jāmbūnada, who warns Lakshmana that Rāvana is not to be provoked with a light heart: (X. 221-231)—

ಕದನಕ್ಷೋಣಿಯಾಜ್ಞಾದರ್ ಪುಡಿದರಂಬೀ ವಾರ್ತಯಂ ಕಂಡರಂ
ದುದನೇಗ್ರಂಡರಿಳೀಶರಂಬ ನುಡಿಯಂ ಭೂಭಾಗದೊಳ್ಳ ಕೇಳಲಾ |
ದುದು ಗೆಳ್ಳಿರ್ ಸಂಗಾದಿದರ್ ಪಗವರಂಬೀ ವಾರ್ತಯಂ ಕೇಳಲಾ
ಗದಪಂ ವರ್ತಿಸಿದಿಂ ಬಡಿಕ್ಕನ ಜಗದ್ವಿದ್ವಾವಣಂ ರಾವಣಂ ||—(X. 226.)

‘Since Rāvana came, we have heard that on the battle field kings have died or run away or bowed to his wishes; never have we heard that the foes won or were even well matched: the Terror of the World is Rāvana.’

But an old prophecy crops up again: Jāmbūnada has heard that whoever lifts Siddha Saila will kill Rāvana (one thinks of Birnam wood and high Dunsinnane hill). Lakshmana retorts: ‘That he is a hero is proved by his theft of Sita: Weigh Rāma and him with your eyes when they are locked in fair fight.’—

ರಾಮರಾವಣರ ಬಲ್ಲಂ ಮುಲ್ಲುಮುಂ ಕಾಣಲ |
ಪ್ರಾ ದು ಧಟ್ಟಾತ್ ಇವಲ್ಲ ದಿತ್ಯಮೂರ್ತಯಂ ತಾಗಿಂ ರಾಕ್ಷೋಣಿಯಾಳ್ ||
—(X. 223).

And he lifts up Siddha Saila!

So much for the great Emperor and the Doom, awaiting. Two episodes may now be adduced to illustrate Rāvana’s kingly clemency and what is most important in view of his great fall, his purity.

When Indra and Sahasrabahu are captured, their parents come and beg, and Rāvana releases and reinstates them on their thrones. He says to Varuna:—

ಕಲ ನಾವಂ, ಹಿಡಿವಡೆಪಂ,
ಕಲಹೆಂದು ಭಂಗಮಲ್ಲ ; ನೀರೊ ಮುಸ್ಸಿನಪೋರ್ |
ನೆಲಸಿಪುರ್ದು ನಿಜರಾಜ್ಯದೊ
ಳೂಲವಿಂದೆಂದೊಸದು ಪರಾಣನಂ ಮನ್ಸಿಸಿದಂ ||—(X. 230).

‘A brave man dies or is taken prisoner in battle; that is no disgrace; be a friend and rule as before in your kingdom; thus, graciously he honoured Varuna.’

For this, of course, as in similar cases, from Chandragupta Maurya onwards (and backwards too) he receives Varuna’s daughter in marriage. That takes me to Rāvana’s attitude to women. He marries a number of them, but so does Rāma too. I have not counted, but I am

afraid it is a very large number; but then, ಒಹುವ್ಲಿಫಾರಾಜಾನೆಶ್ಲೂಯಂತೇ. Early in life, however, he was vowed to 'chastity' by his Guru. (IX. 114 and 149) and he has kept the vow faithfully. The poet enforces this by his rejection of Upa Rambhē, wife of Nalakūbara (X. 187-196). This is one of those reversals of Vālmiki in which our author delights. In Vālmiki, Rāvana violates Rambhē, wife of Nalakūbara, his brother's son. Here, Upa Rambhē, who has heard of Rāvana and has long felt a passion for him, sends her maid to him, offering to let him know the secrets of the fortress, if he will return her love. Rāvana recoils, but Vibhishana (no piety puppet) counsels a ruse. So she is sent for, betrays the secret, and is then persuaded to be loyal to her husband. I must give the Kannada of this:—

ದಶಾನನಂ ಪ್ರಾಯುಂ ಪಾಪಮುವ್ವ ದುಕ್ಕರಿತ್ರಮನೆವನಂದು ನಿಶ್ಚಯಾಸಿ ಏಭೀಷಣಂಗಿಯಪುಪುದುಂ, ಅತಂ ವಿದ್ಯಾಪ್ರಾಕಾರಮಂ ಕಡಿಸುವಂತುಳಂ ಪ್ರತಿಧ್ಯೇಯ ನಾಕಯಂ ಬರಿಂ ಪ್ರಸಿದ್ಧನಂಬಿಸಿಕಲ್ಲು ಕೆಳಕ್ಕುದೇನ, ರಾಷಣಂ ಆಕಯಂ ತಾಯಂದು ವಕ್ಷೋಕ್ತಯಂ ನುಡಿಪುದುಂ . . . —(192 ff.).

'Dasānana would have none of the infamy and sin and wicked conduct; but Vibhishana thought that she might be given a false promise and the counter-charm to destroy the charmed walls might be learnt from her; so Rāvana said in a double sense by a pun on words: Bring her or she is my mother.'

And when the fort and the king are taken,

ರಾಷಣಂ ರಹ್ಯದಿಂದಾಕಯಂ ಕರೆದು, 'ನೀಂ ವಿಶುದ್ಧಕುಲದ ಕುಶಧ್ವಜಂಗಂ ಮಧುಕಾಂತಗಂ ಪ್ರಾಣಿದುಧಖಿಂ ನಿಜಕುರಾಜಾರಮಂ ಬಗೆದು ಶೀಲಪರಿಪಾಲನಂ ಮಾಣ್ಣದು' ಅಂತಲ್ಲದೆಯುಂ ನೀನೆನಗೆ ವಿದ್ಯೇಪದೇಶಂಗಿಯ್ಯಾದಖಿಂ ಗುರುವಾದ; ವಶತೇನಮಂಬಿಗಯಡ ನಷ್ಟಕೂಬರನೋಽ ಕುಂಡಿ ಸುಖವಿರು' ಎಂದು ಆಕಯಂ ದುಪ್ಪರಿಣಾಮುಮಂ ಪತ್ತುವಿಡಿಸಿ—

ನಷ್ಟಕೂಬರನುಮನಾಕ್ಷಣ
ದೊಳಿಬಿಸಿ ನಿಜಾಗ್ರಿತನಯೆಂದಗಿಯಿಂದ |
ಗ್ರಾಮನ ಮನ್ಮಿಸಿ ಭಯಮಂ
ಕಳದಿತ್ತಂ ಭೃತ್ಯಪದವಿಯಂ ದಶವದನಂ ||—(195—196).

'Rāvana *in private* sent for her and said—You are of a noble family; remember your father and mother; keep pure your character; besides, you have taught me an art and so you are my teacher; don't think of other things, but be loyal to Nalakūbara and live happy. Having thus saved her from her infatuation, he immediately sent for Nalakūbara and treating him with greater regard than his own eldest son Indagi he calmed his fears and made him a vassal king under his suzerainty.'

Truly, a self-disciplined and magnanimous king of men, this all-powerful Emperor !

IV

'But oh, vain boast! Who can control his fate?'—Was he not to die because of Jānaki at the hand of Dāsarathi (Lakshmana in this poem, not Rāma; not a happy change this, but probably due to Jaina tradition). Karma was all this while pushing Rāma, Lakshmana, Sīta, nearer and nearer Rāvana and weaving its web round them. One day, tidings arrive from his brother-in-law Khara that Rāma and Lakshmana have killed his innocent son Shambhuka who was performing Tapas, and thereupon insulted his wife and Rāvana's sister, and on a skirmish ensuing, Khara finds them too strong and prays for aid from his royal master.

So the fire is kindled—that is to burn Rāvana, the fire of passion, the fire of sin,—Death. He rises from his throne—**ಕದನಮದೋಧ್ತತಂ, ದುಷರ್ಯಂ, ಅಸ್ತುಮಿತಪ್ರಜ್ಞದಶಾನನಾದಶಾನನಂ**, (IX. 72-73), 'drunk with the lust of war, invincible,—the star of his good fortune, and salvation, set!' **ಸಂವರ್ತನಮಯಂ ಸಮುದ್ರದಂತ ಕದದಿ** (IX. 71)—'tossed and stirred like the sea on the Day of Doom!'

In his Pushpaka Vimāna, he flies to Dandakāranya, and sees Sīta, his fate.

ಬಲ ದ್ವಾಷಿಗೆ ವಜ್ರದ ಸಂ
ಕಲ ಹೃದಯಕ್ಕೆ ನಿಪ ರೂಪವತಿ ಜಾನಕಿ ಕ |
ಷ್ಣಿಗ್ಂಡಿಲಂಧಿರ ಪದ್ಮಪತ್ರದ
ಜಲಬಿಂದುವಿನಂತ ಚಲತಮಾದುದು ಹಿತ್ತಂ || - - (IX. 76)

'A snare to the eye, chains of diamond for the heart, beautiful *Janaki* came into his field of vision—and his mind moved from its moorings like a water-drop on the lotus-leaf.'

ಕ್ಯಂಗಾರನಮುದ್ರಮಂ ಕಡಯ ಹೃದ್ವಮನುಷ್ಣಿಮ್ಯಾದಳಂದು ಕ
ಣ್ಣಾರ ದಶಾಸ್ಯೇಷಿಕ್ಷಿಸಿದ ನೀಷಿಕ್ಷಿಸಿ ಕಣ್ಣಾಲುದಾರ ಮನ್ಯಂಥಂ ||
ಪಲರುಂ ವಿದ್ಯಾರಥರಸ್ತೀಯರುಮವರಿಯರುಂ ಹಾನಮಸ್ತೀಯರುಂ ತ
ಮೈ ಲಬಿಂ ಹೇರಾಯ್ಯಾದಂ ಮುಂಬಗೆಯಿದ ಬಗೆಯ್ಯಾನಾದುದೆಂದುಧ್ವತಂಮಾಲ
ದಲಸುತ್ತುಂ ರಳಿನೊಳ್ಳಿ ಮಾತ್ರೆ ರಿಸುವನೆಗಿಂದಂಬನಂಬಿಷ್ಟುವನ್ನಂ
ಪಲಕಾಲಕ್ಕೆ ನುವ್ವೆತ್ತಂ ದಶಮುಖನೆನುತುಂ ಮನ್ಯಂಥಂ ಮಾಣಿದಷ್ಟೂ ||

—(IX. 82-83)

"As Rāvana gazed and gazed at Sīta, glutting his eyes with her—'O! she was born, by Cupid churning the sea of Beauty:'—at him gazed Cupid, seeing it all at a glance shouting in triumph—'Ah! my man, where is the mind now that minded not before so many fairies, goddesses and mortal women who threw themselves at you in love? Long have

I bided my time and at last you are shot, Dasamukha! So gloating and taunting, Manmatha, envious also of Rāvana's beauty, let fly arrow after arrow, incessant, one chasing another!"

And the poet himself is surprised and sad—

ಎನ್ನು ರುಂ ಕಡಿಮುಸಿಯಾದವೋಲ್ ವಿಷಯಲೋಭದ ನೇಣಿದರಾಗದಿರ್ವರೇ !
ವಿಹಿತಾಚಾರಮನ್ವಯಾಗತ ಗುಣಪ್ರಬ್ರಾತಿಯಂ ದುಷ್ಪಾನಿ
ಗ್ರಹ ಶಿಷ್ಟಪ್ರತಿಪಾಲನ ಕ್ಷಮತಯಃಂ ಕ್ಷಾಗಾಯಿದನಾಂಗನಾ !
ಸ್ವಾಹೇಯಿರ ತಾಳ್ಳಿದನರ್ತ ಕಾಲವಶದಿಂ ಲಂಕೇಶ್ವರಂ ವಿಸ್ತುಯಾ
ವಹಪಲ್ತಬ್ಧಿಯು ಮೊಬೇ ಕಾಲವಶದಿಂ ಮರ್ವಾದಯುಂ ದಾಂಡದೇ ||

—(IX. 85-86)

'Passion makes light even the best men, like a glowing spark become soot. Alas, the Lord of Lanka, under the sway of Time, has come to lust after another's wife! abandoning approved conduct, the famed virtues of his house, and his kingly duty of guarding the good and punishing the wicked! Wonders do happen: does not even the ocean outstep his limits once in the sway of Time!'

Lost already in the loss of spirituality, Rāvana calls up his Avalōkini Vidya.—

ಅತ್ಯಂಗಣಹಾನಿಯ ಸೂಳಸದೇ ವಿನಾಶಮಂ ?—(IX. 86)

She chides him, warns him that Rāma and Lakshmana are ಕಾರಣ ಪುರಂಭರ್ ಮen of Destiny, but he is in no mood for admonition ಉಪದೇಶಂ. She knows he is destined to die for Sita, and a man must needs follow where his Karma leads—

ಅತನ ಕಯ್ಯಳವಲ್ತ ಪುರಾತನಕರ್ತೃಯತ್ತಮಲ್ತ ದೇಹಗಳನಕಂ—(IX. 96)

She separates Lakshmana from Sita by a cry as from Rāma, and Rāvana seizes Sita:

ಮೋಣಿ ವಿಹಿವಂತ ದಿವ್ಯದ
ಕಾಸಿದ ಕುಣಿವಂ, ಕಡಂಗಿ ಕಾಳೋರಗನಂ |
ಕಂಸು ವಿಹಿವಂತ, ವಿಹಿದಂ
ಸಾಸಿಗನವಿವೇಕ, ಸೀತಯಂ ದಶಕಂತಂ ||—(IX. 101)

'As a guilty man seizes the red hot plough-share in the ordeal, as a child seizes a furious black serpent with ardour, so rashly venturing fool, Dasakantha seized Sita.'

A certain prince Ratnajati hears the cries of Sita and flies up stopping Rāvana: (it is he who later carries the news to Sugriva and Rāma)—but Rāvana remembers his old friendship for his father and merely cuts off his flying power.

ಅರ್ಕಜಡಿಯ ನಷ್ಟಂಗವನೋ
ಕಾದದ ಕರುಣಿಸಿ ವಿದ್ವಾ
ಭ್ರೇದಂಗಿಯ್ಯಂ ನಿರಂಕುಶಂ ದಶಕಂತಂ ||—(IX. 146)

As he flies on to Lanka, he cannot contain himself: ಕಣ್ಣಾತೆಯಿ
ನಹಾಂಗಮುಂ ತೆಗೆದಾಲಂಗಿನೆ . . . ಧೃರ್ಯಂಗಣ್ಣ ಮೇಲ್ರಾಯ್ಯಾಚೇಷ್ಟೇಗೆ
ಪಾಲಸ್ತ್ಯನು ಮೊತ್ತಗೊಳಿಸುವರಾರಂ ದರ್ಪಕಂ ದಂಡಿನಂ?—His eyes scoured
and devoured and embraced her whole body, his self-control was lost and
he began to approach her. When even Ravana allowed such tricks of
passion to get hold of him, whom cannot Cupid punish? (IX. 148)
But Sita threatens to pull out her tongue and die and Ravana desists,
hoping for better times.

ಮಹಾಸತಿಯ ಶೀಲದಳವನ ಚಿಯನಪ್ಪುದ ಕ್ಷಿಂ, ಅನಂತೇಧ್ಯಕೇವಲಗಳತ್ತ
ಪರವಧಿವಿರತಿವ್ಯತಪರಿಪಾಲನವನಗರಿದಾದುದನ ನಿಸಗ್ರಾಗಿಗಳಿಷ್ಟ ಬೆಂದಿರ ಪರಿ
ಣಾಮುಂ ಎಲ್ಲಿಪರಂ ನಡೆದಪ್ಪುದೀಕೆಯನಾವತ ನಿದೀಳವೊಡಂಬಡಿನುವುದಾವಗಹನಂ
ಎಂದು ತನ್ನಂ ತಾನ ಸಂತಯಿಸುತ್ತುಂ—

‘Consoling himself in this manner—because he had never known
what the character of a noble wife was like—when I find it so hard to
keep the vow of not desiring others’ wives to which my Guru Ananta
Virya vowed me—how long will the resolution hold of women who are
passionate by nature? It will not be very difficult to persuade this lady
in some way.’—(IX. 148ff.)

So he reaches Lanka and places her in a mansion in his Royal
Park and tosses on his bed feverish for Sita and humiliated because he
has not avenged his sister and nephew and brother-in-law. His wife
guesses it must be love—since war never meant all that pain to Ravana;
but he shrinks from telling her; and when she has guessed, he is ashamed
and confesses that he has brought away Sita like a fool:

ಎನ್ನೆ ವಂಚಿಸರಾಗದು,—ತಂದೆನಿಂದು ಮುಂದ ಶೀಯದ ಸೀತಯಂ

—(IX. 160)

Mandodari is frightened for her lord’s life and comforts him with
the cynical remark—

ಅಂತಿಪ್ರಭೀಯುಂ ಪೆಂಡಿರ

ಶುಚಿತ್ವಮುಂ ಕ್ಷಣಿದ ನಗ್ಗಳಂ ನಿಲ್ಪುಮೆ . . .

ಅಕಯುನೆಡಂಬಡಿಸರಾನ ನಾರ್ಯಂ॥—(IX. 161 ff.)

‘Lightning and the chastity of women do not last beyond a moment.
Leave me to bring her round.’ (O woman! O wife! What wonder
Ravana had his own opinion of woman’s virtue!)

A stifling atmosphere, but the air clears as Sita speaks out sharp
to Mandodari—

ಇದು ಮತ್ತೊನ್ನೆನ್ನತ್ತೆಜಲ್ಲೂ, ಕುಲವಧುವರಮಾತಲ್ಲು, ನಿಮ್ಮೊಂದಿಗರ್ ವೆಂ

ತದ ಕೇದಂ ನೋಡೆಲ್ಲಾಗ್ಗಂ ಬಗಯಾದ ಪಟಗಂ ಪಾತಕಕ್ಕಂ ಭಯಂಗೊ |

ಧೃದ ಪೇಣರ್, ಪೊಲ್ಲಿಮಾತಂ ನುಡಿವಿರಿದು ಮನಂನೋಣಿನಂಕಪ್ಪಜಲ್ಲೂ

ಮಂದಧಿತಂ ರಾಮಚಂದ್ರಂ ಪೂಳಿಗನ, ಪಾರ್ವತಿಜಾತಾನುಜಾತರ್ ||

—(IX. 169)

‘This is the foolish chatter of shameless women ; not the speech of noble wives. Ladies like you never talk like this, but think of the ruin of the house, think of goodness, and fear ill-fame and sin. You are speaking evil words. You must be making trial of me. Let one word do for all—saving my lord, Rāmachandra, men are to me sons and brothers.’

And to Rāvana, who offers an empire and scouts danger from Rāma, a poor, forsaken, wanderer of the woods—she says firmly,

గుణకాపియిందఫోగ్త,
గుణదిం స్వగాఁపవగ్మసుఖపుక్కువునర్ |
గుణకినన సిరియిందం
గుణగఁ బడతనచే నాదయుం లేనస్త్రే || —(IX. 182)

‘Hell and perdition by loss of virtue; and from virtue, heaven and salvation: If that is the truth, blessed far above the wealth of the wicked is the poverty of the good.’

Rāvana is only maddened—‘love, being baulked, rageth all the more.’

బిడనుడియి సితే, ముఖిన
పడమాతంతికే, రావణింగోలపు పది |
మఁడిసిత్తప్రాత్తి రసం
బడగుం వ్యాఘయికసుఖయోళిదు విస్తృయమే || —(IX. 186)

I must now hurry on and come to the last scene of this strange eventful history. Vibhīshana hears the sobs of Sita in the hush of night and remembers the ancient prophecy (IX. 192). Sugrīva and Hanumān are falling away and joining Rāma, for moral, and (obvious) political reasons. Vibhīshana preaches and warns. Rāvana is relentless and undismayed.

..... కటిచిష్ట రిప్పదేం
కిడువుదొ ? భూచరరో ధురదొఽాంపర వీఁచరిచ్చెవతిఁయాం ||
—(IX. 195)

‘If a few drops are lost to the sea, is the sea dry ? if Khara and Dūshana are killed, is our great army gone ? if the Kapi Dhvājās go, are we lost ? Can mere men, walkers of the earth, meet in battle the Emperor of the Khēcharas, fliers in the air ?’

Vibhīshana hopes on—does not much water wear out a stone?—and strengthens the fortifications and watches events. (Preparedness waiting and seeing !)

The Allies gather; old Jāmbūnada advises settlement by conference. ‘Vibhīshana is an honest man, and if Rāvana has gone astray, well, a stained mirror can be cleaned. Remember we are relations and

friends of Rāvana.'—(XI. 20-26). Hanumān comes on the embassy; has anxious discussion with Vibhishana:—

ಶೌಚದಗ್ಗ ಲಕ್ಷಯಃಂ . . . ಕೂಂಡಾಡುವೀರಾವಣಂ
ಎಣಿನದೆ ತನ್ನ ಶೌಚಗುಣಮಂ, ವ್ಯತರಕ್ಷಣಮಂ, ಪರಾಂಗನಾ
ಪ್ರಾಯಮನಪ್ಪಕ್ಕುಯ, ಶರಣಾಗತರಕ್ಷಣದಕ್ಕನಷ್ಟೆ ದ |
ಕ್ಷಣ ಭರತಕ್ಕಿಂಂದ ಧರಣೀಪತಿ, ದಾನವಚಕ್ವತಿ, ರಾ
ವಣ ನಿದನಾಗದನ್ನದೂಡೆ ನಿನ್ನ ನಗದ್ದುಗಿ ಬನ್ನ ಮಾಗದೇ ||—(XI. 78)

'When Rāvana who sings the praises of chastity, careless of his purity, his vow, yields to passion; Rāvana, the guardian of the weak who seek his shelter, the sovereign of the three kingdoms in South Bharata, the Emperor of the Dānavas, if you will not say, this must not be, will it not be your dishonour?'

Vibhishana pleads—'Do you think I have said nothing? Can I be indifferent? He won't listen. Poor Sita has been starving to save her family honour, her own virtue, her ideal of herself, and still my elder brother is not moved to renunciation. He is sending her messengers every day.'

ಅಗದಂದಾಸಿನ ಕುಪದುದಾಸಿನದಿಂ ಮುನ್ನ ಮೇನಿದ್ದನೆ . . . ಪ್ರೇಣ್ಣದಂಕೇ
ಇನ . . . ಅನ್ನ ತ್ಯಾಗಮೊಳದೇವ ಕುಲಮಂ ವ್ಯತಮಂ || ತನ್ನ ನ್ನ ತಿಯಂ ಕಾಯೊಡ |
ಮಿನ್ನುಂ ವ್ಯೋರಾಗ್ಯಮಾಡುಲಿಲಗ್ರಜನೊಳ ! . . . ಮತ್ತು ಮಾಣಿಕ್ಯಾಣಿಕ್ಯಾಣಿದರ್ಪಂ ||

—XI. (80-82)

An angry scene follows between Hanumān and Rāvana. 'Traitor' cries the King, 'forgetful of our relationship, of my kindnesses, of your own dignity, you come as the servant of a Bhūchara!'—(XI. 104, 136, 137).

It is now war. Rāma's army crosses over, by air-flight, Nāgachandra remarking drily that this is more economic than pulling up and heaping hills.

ಬಣ್ಣಮನೊಣ್ಣ ಬಚ್ಚೆನಡವಣ್ಣಗಮೇವುದೂ !—(XII. 96)

Vibhishana meanwhile has joined them; after a final appeal to Rāvana: leaving Lanka like an elephant avoiding a wood set on fire and following his Karma, which was to be the next Emperor—(XII. 52-76). His words on sin are worth quoting—

ಬಗೆ ದಸಿಬ್ದುಂ ಪರಿಪುದು,

ಬಗೆಯಂ ಬಗೆದಂತ ಪರಿಯಲ್ಯಾಯದ, ಕಿರಿಯಂ |

ತಗೆಪುದು ಪಣಾಪೂದೆದ ಬ

ಷಟ್ಗೆ, ನಿಜದಿಂದಾರಬಗೆಶಂ ಸೇರಿದುಮೇ ||—(XII. 54)

'Man's mind runs to all quarters of the earth. The great man is he who does not let it run as it likes, but leads it to the path that hath no stain. No one's mind is by nature *straight*.'

And now, the last scene, the most powerfully dramatic and touching, it seems to me, in the whole poem. Rāvana has spurned away his own brother, another revolter. 'Let them fly all.' The battle has steadily gone against him. Sons and brothers are lost. He orders worship in Sānti Jina's temple and himself performs Japa to secure the Bahu Rūpini Vidya, by which he could multiply himself endlessly. Angada tries to break his Yōga but fails. The Sakti appears and will grant power to kill all except Rāma and Lakkhana. Ah!—(XIV. 82-106)

Assuming the most beautiful form, he goes to tempt Jānaki. And lo! the tempter that went out to tempt, he turns again home, clean!

ದಶಾನನನಿಂತಂದಂ-ಬಹುರೂಪಿಣಿ ವಿದ್ಯೆ ಸಾಧಿತಮಾದುದು. ಇನ್ನು ನಗನಾಧ್ಯ ಮಷ್ಟ ಮರುವಕ್ಕೆ ಮಿಲ್ಲ. ನಿನ್ನ ನಷ್ಟಿನ ರಾಮನ ದೇಸೆಯಂ ಬಿಟ್ಟು, ಎನಗೂದಂಬಿಟ್ಟು ಸಾಮಾಜಿಕ ಸುಖಮನನುಭವಿಸು—ಸೀತ ವಿಹ್ವಲೀಭಾತಚಿತ್ತಯಾಗಿ—

ಕರುಣಾನುವೂಡನಗೆ, ದಶಕಂ

ಧರ, ಧುರದೊಳ್ಳ ರಘುತನೂಜನಾಯಃಪಾಣಂ ।

ಬರಗೆಂ ಬಾರದಿರನುತುಂ

ಧರಿತ್ಯಯೋಳ ಮೆಯ್ಯನೂಕ್ಕು ಮುಂಭರ್ಗೆ ಸಂದಳ್ ॥

ಜಾನಕಿ ಮೂರ್ಖಿತಯಾಗ, ದ

ಶಾನನನನುಕಂಬೆ ಪ್ರಷ್ಟೆ, ಕರುಣಿಸಿ, ತನ್ನಂ ।

ತಾನ ಪಂಚದು ಶಾದು ಕಮಾರ್

ಧೀನ ಸಮುತ್ಸುದು ದುರಘ ದುಷ್ಪರಿಣಿಯಂ ॥

ಕದದಿದ ಸಲಲಂ ತಿಳವಂ

ದದ, ತನ್ನಂ ತಾನ ತಿಳಿದ ದಶವದನಂಗಾ ।

ದುದು ವೃಂಡಾಗ್ಯೇಂ ಸೀತಯೋ

ಇಂದಾತ್ಸೋಳ ಪ್ರಷ್ಟದಲ್ಲಿ ನೀಲೀರಾಗಂ ॥

ಪತ್ತುವಿದದಿರ್ಫನೇ ರವಿ

ಪತ್ತಿದ ಸಂಧಾನುರಾಗಮಂ, ಮನದಾಳಿಂ ।

ದತ್ತಾನುಂ ಪೂಲ್ಲಿಸಿಪ್ರದ

ಸುತ್ತುಮನಾಚರಿಸಿ ಪತ್ತುವಿದದಿರ್ಫಪನೇ ! ॥

ಅಂತು ಮನದೊಳಗಿದ ಕಾರುಣ್ಯರಸಮೆ ಸೀತಯೋಳಾದನಾರಕ್ತತಯಃಂ ಕಚ್ಚ
ಕಳಿಪುದುಂ, ಸ್ವಭಾವಪರಿಣಿಯೋಳ ನಿಂದು, ಸ್ವಕೇಯಾಪ್ತಪುರುಷಪರಿಷ್ಟ್ಣನಕ್ಕಂ
ತಂದಂ:—

ಗುಣಪರಿಪಾಲನಾರ್ಥಮನಗೆಂ ಬಗೆದೊಳ್ಳಿದಿಲ್ಲ, ದಿವ್ಯ ಭೂ

ಷಣ ವಸನಾಂಗರಾಗಮುಮನೂಲುದ, ಬೀಳರಾಜ್ಯಲಕ್ಷ್ಯಯಂ ।

ತೃಣಸಮನಾಗ ಭಾವಿಸದ್ಯೀಸತಿಯಂ, ಮಾದಲಾಗ ಪಾರುಪ

ಪ್ರಣಯಿಸಿನಿಂತಪ್ರೇಕ್ಷಣುವನೇ ಗುಣಹಾನಿಯನನ್ನ ಪಾಪದಿಂ ! ॥

ಇವರಂ, ಪ್ರಾಣತ್ಯಯರಂ,

ನಮಿಲ್ಲದ, ಕಮರ್ಪಣಮ ನಮಚೆನ, ಕಂದ ।

ಪರ್ವಿರೋಹದಿಂದಗಳ್ಳಿದ
 ನಿರ್ವೇಕಿಯನ್ನು ಕುಲದ ಚಂಪಣಿನಿಗಂ ! ||
 ರಾಮನನಗಳ್ಳಿ ತಂದಾ
 ನೀಮಾನಿಗಿನಿತು ದುಃಖಮಂ ಪುಟ್ಟಿಸಿದೆಂ |
 ಕಾಮವ್ಯಾಮೋಹಿದಿ ನಾ
 ಶಾಮುಖಮಂ ಪುದಿಯ ದುರುರ್ಜಾಪಣಿರವಂ ||
 ಎನಗೆ ಏಭಿರ್ಜಣಂ ಹಿತಮನಾದರದಿಂದಮು ಹೇಳಿ, ಕೇಳಿ
 ತನೆರೋಹನಂ ಗಜಕ್ಕಿ ಗರ್ಭಿ ಸಿ ಬಯ್ದು ನುಜಾತನಂ ಏನೇ |
 ತನಸರ್ಜೀಯಳ್ಳಿ ದುರ್ಘ್ಯಸೆಯಂ ಕಣಿದಂ, ವ್ಯಾನನಾಭಿಭೂತನಾ
 ವನುಮನುರಾಗವೇಗದ ಹಿತಾಹಿತಚಂತಯನೇಕೆಮಾಡುಗುಂ ||
 ಜನಸರ್ವದಂ, ಪರಾಭವದಪತ್ತಿಗರುಂ, ದೂರವೆತ್ತ ತಮ್ಮ ಮಾ |
 ನಿಸಿಕೆಯ ಕೆಡನುನ್ನ ತಿಯ ಬನ್ನ ಮನಸ್ಯಭವಾನುಬದ್ಧಮು |
 ಪ್ರಸ್ತಾವನೆಯಂ, ನಿಹೃಜ್ಜನದ ಬ್ರಹ್ಮಸಮಂ, ಜನತಾಪವಾದಮಂ |
 ವ್ಯಾನಾಗಳಾರು ಮೆತ್ತಲ ಕುರಿಪರೇ ವಿಷಯಾನವಮತ್ತ ಕೇಳನರ್ ||
 ಎಂದು ಉದ್ದೇಗಿಸರನಾಗಿ ನುಡಿದು, ಅತ್ಯಗತದೊಳಿಂತಂದಂ-
 ಇರದುಯ್ಯೀಗಳ ಕೂಟುಡಿನ್ನ ಕಡುಪುಂ, ಕಟ್ಟಾಯುಮುಂ, ಬೀರಮುಂ
 ಬಿರುದುಂ, ಬೀಸರಮಕ್ಕು ಮೋಸರಿಸಿದಂತಾಗಿಕುರ್ವಂತಾಗದಂ |
 ಅರ, ಮೋಗರ್ವರ್ವಮನಿವರ್ವಲಂ ಪಂಗಿಯ್ವನಂ, ನಾಮಿತ್ರಯಂ ರಾಮನಂ
 ವಿರಘಮಾರ್ದಿ, ರಣಾಗ್ರಂಥಿ ಹಿಡಿದುತಂದಾಂ ಕೂಟುಪೆಂ ಸೀತಯಂ ||

' Said Dasanana :—I have acquired the art of myriad forms. No enemy can withstand me now. Give up your dear, trusted Rama as a refuge. Consent to me and enjoy Imperial happiness.

' Sita suddenly lost all her presence of mind. O Ravana, she cried, if you really have any loving kindness for me, do anything in the fight short of taking the life of Rama! And her limbs were loosened and she fell on the ground and swooned away.

' Touched was Ravana; sympathy was born, and mercy. Himself blaming himself, he left off the sinful, evil turn of his mind, born of the sway of Karma. Like turbid water clearing, himself cleared himself and felt renunciation with regard to Sita. *No noble soul ever becomes black in grain.*

' Doesn't the Sun unflush from the crimson love of Evening? A noble man, will he not give up evil, after doing wrong, some time, from the temptations of the mind?

' So, the Kärunya Rasa (flood of Mercy) in his mind now swelling washed off the red taint of his love for Sita, and he stood forth in his *native disposition of mind* and said to his inner circle of friends and counsellors,—

' See, for Virtue's sake, even to me, she gave not her heart. She

would have none of our ornament, robes, perfume, colour. The wealth and grandeur of sovereignty she deemed mere straw, this woman! And I, a man, lover of the true excellence of Man, shall I desire the loss of my virtue by continuing in my sin?

‘These lovers, dear to each other as life, for no cause but the sway of Karma, no other cause, maddened with passion, I separated, fool, and wrecked the greatness of my family.

‘From brute passion, I tore away this honourable lady from Rāma, and brought her all this sorrow. My disgrace has been trumpeted to the ends of the world!

‘Lovingly, Vibhishana told me my own good; but wretched villain that I was, I would not hear. I flamed up, I shouted, I said hard words and drove away from home my own dear brother, that noble heart! Oh! carried away by the mad rush of love, who ever stopped to enquire what was or was not for his good?

‘How can men feel, when their mind is intoxicated by lust, the loss of reputation, the certainty of humiliation, the ruin of their peerless manhood, the break-up of the highest in them, the bonds of fresh lives into which their salvation is lost, the heart-sorrow of friends, the scandal among people!

‘So spoke Rāvana, remorseful,—and said to himself—If I give her back now, my will, and strength and valour and titles, will all be as if they had never been. I shall be taken for a coward, who swerves, for he cannot face Death! That must not be. I shall fight till both the hosts ring with my praises, drag Lakshmana and Rāma down from their chariots, bring them to Lanka and present Sita?’—(XIV. 110-119).

Mandōdari, frightened at omens, comes to stop Rāvana (like another Calpurnia), and offers to buy peace by herself delivering Sita. But he cannot brook her sight, and orders her in anger to go away.

రాఘవాచేతదిన నీనిల్లం తొలగెందు చప్పేరిసిదం. —(XIV. 125)

The wheel of Lakshmana does its appointed work, and Rāvana’s soul at last knows rest.

A last word of pity from Abhinava Pampa—

శ్వదయం సీతా నిమిత్తం మనసిజున పంచేషువిం భన్నమాగి
దుఫనశుం, లక్ష్మిధరం కోపదినిదేహతేరం చెర్చరత్నకై పాడా!
దుదనరా, థిష్టుచిఫ బ్స్నిం షోషమడ, ఏగతపాణనా దానవేంద్రం
త్రదతీంద్రం వష్టదిందిష్టుడ, నదుగెనలం, బెట్టుబీంప్రంత బింద్రం. ||

‘The heart, pierced and shattered by the arrows of Love, on account of Sita—what could it do but burst at the touch of Lakshmana’s wheel? As the Chakra pierced and left at the back, like a mountain struck by the lightning of Indra, the Indra of the Dānavas fell, earth-shaking.’

And Vibhishana, is made to express amazement.—

ಕೌಚಾಚಾರ ಪರಾಯಣನವ್ವ ರಾಷಣನಾಮಪಾಪಂಗಯ್ಯಾನಾಗಿ ಶೀತಾದೇವಿಗೆ
ಮರುಳ್ಳಿಂಡು ಪೋದಂ ? (XVI. 36 ff)

‘What sin had Rāvana committed, that, with all his devotion to purity, he went so mad over Queen Sīta ?’

If the soul of Tulsi Dās’s Rāvana was taken into God’s bosom—I have myself no doubt it was—we may be sure about Nāgachandra’s. The Highest has a large heart and understands tragedies. Rāvana, the shattered man, fell; but his spirit, having paid the supreme penalty of sin, has risen and dwelt in the imaginations of men like Nāgachandra—men who can divine a grief and sympathise.

B. M. SRIKANTIA.

SAMUDRAGUPTA.

SAMUDRAGUPTA, in many respects by far the most distinguished member of a distinguished dynasty, has been brought to the notice of historians as the result of the comparatively newly organised Archaeological Department of the Government of India. Though something was known of him to the early Archaeologists and an attempt had been made to interpret some of the inscriptions of the Guptas, it is to the labours of the late Dr. Vincent Smith that we are indebted for the knowledge that we possess of this interesting and eminent ruler of India. It is Vincent Smith's study of the Gupta coins that started him in the course of research. He had all along been keeping himself alive to all that was made available in regard to the subject during the last 30 years and more, examining critically every piece of information brought to the notice of the public and incorporating the new material in various articles from time to time, so that he could give us a more or less full account of the monarch and his achievements in the latest edition of his book "Early History of India," which has now become the standard book on Indian History for the period. Notwithstanding the sustained labours of the late lamented scholar and his successful achievement, Samudragupta's is a character that would bear re-study from many points of view, and a new presentation of it may not be altogether superfluous. The late Dr. Smith, perhaps by an unhappy inspiration, described Samudragupta as the Indian Napolean, and thus gave to his achievements a character which on closer scrutiny it does not bear. This description had the further consequence of completely overshadowing the achievements of his father so that Chandragupta I suffered the same fate that Philip of Macedon did. Both alike were ignored by the historians, because each of them had the good fortune to be the father of a son greater than himself. It is easy to demonstrate that Samudragupta would have been impossible but for Chandragupta I, as an Alexander has been proved to be impossible without Philip before him.

In the third century of the Christian era the Guptas were comparatively a minor dynasty like many others of the kind, ruling over Magadha with the territory on the banks of the Ganges dependent on Prayāga (Allahabad) and Sākēta (Oudh). That there were Gupta rajas in this territory about that time, and perhaps even earlier, is known to us from the notes of the Chinese traveller I-Tsing who was in

Nalanda in the second half of the seventh century. This Chinese traveller refers to a grant made to the Nalanda University where he studied, by a Mahārāja Sri Gupta 500 years before his time, which would mean that there was a Mahārāja Sri Gupta ruling the territory in the second century A.D. This family remained in obscurity to the end of the third century when it came into some prominence. It is probably in regard to this period of their history that the Purānas make the reference quoted at the head of the paragraph. To Chandragupta, the father of Samudragupta, is due the credit of bringing this dynasty to prominence. After the death of the great Kushan ruler Vāsudēva, the empire of the Kushans must have broken up, and the outer territories belonging to the Empire must have fallen away from the imperial authority and set themselves up in independence. Magadha and the territory dependent thereon must have taken advantage of the confusion, under the Guptas, and achieved its own independence. Probably the territory of the kingdom of Magadha was surrounded by kingdoms or states over which petty rulers or tribal chieftains held sway. The advance therefore of the Guptas to a position of dominant influence must have come about as a result of the building up of a superior military power and political connections. We have no information as to the manner in which the military power of the Guptas developed, but one act of Chandragupta which gained for him a considerable amount of political influence has come to our knowledge in the Gupta monuments and records recently made accessible to us. Coins usually ascribed to Samudragupta contain effigies of the king and the queen, the latter of whom is described as a Lichchavi princess. These coins also show on the reverse a goddess seated on a throne, perhaps representing the Sri or prosperity of the Lichchavis. The Gupta inscriptions generally make much of this marriage alliance so that we may take it that the alliance was regarded as of the highest importance by the Guptas themselves. The marriage not merely brought to Chandragupta the alliance of the influential tribe of the Lichchavis, but also must have brought accession of territory along with it. Otherwise representation of the goddess of the Lichchavis and the addition of the coin legend 'Lichchavayah' on the coins would have no particular significance. This would have rounded off his territory on a side which was perhaps the most vulnerable from the point of view of the territory of Magadha, as we know from the previous history of the kingdom. It seems possible also to ascribe to him some warlike achievements against the peoples of Bengal on the one side, and of 'the Bāhlikas across the seven mouths of the Indus' from the inscription on the iron pillar in the Kutb-Minar at Delhi, though this inscription is ascribed by some scholars to others. It is some such achievement that

must have raised Chandragupta I to the dignity of a 'Mahārājādhirāja,' as otherwise his neighbours would not have acquiesced in his assumption of this suzerain title. It may therefore be taken that both by the diplomatic alliance with the Lichchavis and by some warlike acts against powerful neighbours, Chandragupta raised the Gupta family of Mahārājās to the superior dignity of an Adhirājya or empire. This is what is symbolised in certain of the coins of the Guptas where the effigy of the king is shown with an umbrella raised above his head, which, whether the coins were actually issued by Chandragupta I or by his successors, would have no significance, unless it be that Chandragupta I was the man who raised the family to the imperial dignity. It was to the territory and dignity of this Chandragupta I that Samudragupta succeeded.

Samudragupta was born of the Lichchavi princess Kumaradevi to Mahārājādhirāja Sri Chandragupta of the Gupta dynasty. It seems probable that Samudragupta was not the only son, and possibly not even the oldest among them. Either because of his extraordinary natural powers or because he exhibited great aptitude, he was, for princes, very carefully and very highly educated. He is described in the one document that has come down to us that he delighted in the company of the learned, and was a great master in the art of getting to the root of things, and enjoyed among the learned great fame in the exposition of excellent classics, and perhaps even in the production of some. The course of education prescribed to princes was, in those days, comprehensive. We get a few glimpses of the course through various inscriptions of which the Hatigumpha inscription of Kharavāla, the Kalinga rāja describes the course with the greatest detail. The whole appears then to have comprised a knowledge of the Veda, specially Rik and Samam; mathematics; composition, particularly of state documents; Rūpam or study of coinage, Vyavahāra or law; in addition the art of elephant-riding and horse-riding and archery, etc., and finally even such subjects as Vaisiki-vidyā, the art of public women. A king was required to undergo his early education and give himself a liberal course of physical training up to the age of fifteen. Then for the nine years following he was expected to specialise in subjects of direct value to the position of a ruler, *viz.*, such subjects the knowledge of which would enable him to control effectively the working of the various departments which centred at the headquarters of the monarch. Having been so carefully educated and made, thanks to his own innate intelligence and careful nurture, such excellent progress, he attained the position of a prince most excellently equipped for the difficult and responsible position of the sovereign of a rising empire which had just got

under way for a prosperous voyage through the exertions of his father Chandragupta I. Chandragupta I had apparently reached a stage in his life when he felt the need of committing the charge of his state to a capable successor, and having scanned carefully all the details, the qualities and accomplishments of those eligible for succession he made up his mind in the open Durbar and indicated that the worthiest was Samudragupta. With his eyes full of rolling tears, intent solely upon discovering real character and worth, and with his hair standing on end, he embraced the prince Samudragupta exclaiming "what a worthy son!" ; and said to the great relief of the assembled courtiers, the faces of those with equal claims fading, "may you rule the whole earth." Seeing many of his super-human deeds of valour, several became attached to him; subdued by the valour of his arms, others rendered obedience to him; and thus he became very popular. He was given an early occasion for exhibiting his valour, when he was attacked in Pātalipura by Achyuta, Nāgasēna and perhaps other kings, one of whom is described as belonging to the Kota family. He destroyed the armies of all of them as if in mere play, and turned them all away baulked of their ambitions. He set himself up as the protector of *dharma*, possessed of unsullied fame, pleasing the learned, subduing the wicked and gaining in the world the objects worthy of attaining. He was well versed in the path of the Veda. He excelled in the composition of literary works which outdistanced the most excellent performances of learned poets, and thus became the only worthy person to be thought of by those that excelled in intellectual possessions and good qualities. With accomplishments so varied and excellent, Samudragupta occupied the throne of his father, and it was his function to bring to full fruition the ambitions of his father to make the Guptas the suzerain power in India.

We have already seen that Samudragupta's accession was challenged by enemies who must have been in the immediate neighbourhood. The names of Achyuta and Nāgasēna among those that attacked him in his capital Pushpapura figure among the kings of Aryāvarta in the list of those that he is said to have conquered. It is therefore possible that Achyuta ruled somewhere about Ahichchatra as the late Dr. Smith surmised. Nāgasēna was probably a ruler in the immediate neighbourhood. It would conduce to clearness of understanding if we could make a general survey of the political condition of India at the time, before we detail the various conquests of his. The period of Samudragupta may be taken to be the middle forty or fifty years of the fourth century after Christ. That was a time when the Kushana empire had gone to pieces completely with even the possibility of a foreign invasion from the newly installed

Sassanian rulers of Persia, of the region of the Punjab. Such of the Kushanas as survived must have become more or less petty rulers. Then there seems to have been a fringe of states some of them held by kings, and others still in the state of tribal constitution, lying in a line beginning from Delhi and Muttra and extending southwards through all Central India and Malva. Immediately behind them and beginning from the region of the southern bank of the Ganges between Allahabad and Benares, or even further eastward, and extending across the Vindhya mountains southwards, lay the great forest countries under a number of petty chieftains. Then immediately to east lay the territory of Magadha with that of the Lichchavis on the northern side of the river extending as far east as where the Ganges actually turns southwards to reach the sea. This block was the territory under the control of the Guptas directly and came into touch on the southern side with the territory of Kalinga. South of that, what was the Andhra empire had broken up into a number of petty states of which about half-a-dozen are enumerated in the Purāṇas. Further south was the region of the Tamil country getting under the control of the newly rising power of the Pallavas with the well-known three kingdoms of the farther south. The whole of the Dakhan was under a dynasty which is known as that of the Vākātakas, and in its best days extended from Kuntala in the south to Bundlekhand in the north. This extent of territory the Vākātakas must have attained to perhaps in the last days of their ruler Pravarasēna, and perhaps before the rise of Chandragupta. It is however clearly ascribed to the ruler Prithvisēna of the Vākātakas, whom we have good reasons to regard as contemporary with Samudragupta. The coast region between the Western Ghats and the sea was under other rulers perhaps for the most part of it under the declining rulers of the foreign dynasty of the Kshatrapas of Gujarat and northern Konkan. The territory east of the Ganges and the region at the foot of the Himalayas remained divided among 8 or 10 rulers, and the region of the north-west frontier extending down to the sea was under a number of foreign potentates. This was the political division of the country at the time that Samudragupta had placed himself firmly upon the throne, and looked about for the successful completion of his father's efforts at the establishment of the empire of the Guptas.

According to the *prasasti* of Harisēna therefore, Samudragupta set forward upon his expedition for a conquest of the quarters (*dig-vijaya*). If the order of recital of Harisēna is to be taken as indicating the actual order of Samudragupta's conquests, he seems to have invaded the southern districts first, but it is possible that this is merely due to the fact that a *dig-vijaya* should begin and proceed towards the right

(*pradakshina*), as it is unlikely that Samudragupta would have started forward on an invasion of the distant south leaving his flank and rear exposed to hostile action. In any case, it would conduce to clearness to follow the record in this particular. His southern invasion seems to have begun with an attack upon the ruler of Kosala. There are 12 rulers according to one enumeration, it may be only 11, that he conquered in this southern invasion, all of whom, he restored each in his position respectively on their tendering submission. The first ruler to be thus conquered is Mahēndra of Kosala; and the next one is Vyāghrarāja of Mahākāntārā. The relative position of these rulers has to be settled before proceeding further. Kosala generally is the country of Oudh, but it is often referred to as Uttara-Kosala. For an invader proceeding southwards from Magadha as his centre this cannot be the Kosala that is meant. There are two other divisions of this that we know of: Maha-Kosala and southern Kosala. It is apparently these divisions that are under reference here. These must have been in a direction south or south-west of Magadha. The country of Kosala included a considerable part of what is now the Central Provinces and the hinter land of Orissa. We have some inscriptions of a Vyāghrarāja, as a feudatory of the Vākātaka sovereign Prithvisēna I. Two inscriptions of his have come down to us in a place called Nachne-ki-Talai not far from Jasso in Bundelkhand; and a third in about the same region; probably that is the Vyāghrarāja that is referred to here, and according to this record, his territory is described as Mahākāntāra. This forest country must have been next adjoining the Kosala country and should have stretched southwards almost from the banks of the Ganges to, and perhaps even very much past, the Vindhya mountains. The Vindhyan forests were proverbially the great forest region according to all Indian literary tradition. The region of Kosala therefore would be immediately south of Magadha with a westward trend, and Mahākāntāra would be to the west of it with a southward trend. The next ruler that he attacked was a Manta-rāja, the Kaurālaka. This last word might well mean, belonging to Kurala. It is possible to equate Kurala with the modern Kurdha and the place may have to be looked for in the region of Kalinga, the modern territory of Orissa. A people by name Kaurolaka are referred in the Brhat Sanhita, and the reference may be to these. The identification with Kerala has been found unsatisfactory long since, and must be given up. The next ruler attacked is generally taken to be Mahēndra ruler of Pishtāpura. The whole expression is "*Paishtapuraka Mahendra giri Kautturaka Svamidatta*." The problem here is how to break the words. It is generally taken to

be Paishtāpura Mahēndra, Mahēndra of Pishtāpur, and then giri-Kauttūraka Svāmidatta, Svāmidatta of Kottūr on the hill. It seems however that only one ruler is mentioned and that is Svāmidatta. He was ruler probably of Pishtāpura and Mahēndragiri-Kottūr, which would mean nothing more than that the territory probably included what were two kingdoms with the two important capitals, Pishtāpura and Kottūr on or near Mahēndragiri. This latter seems preferably the interpretation as in Raghu's *dig-vijaya*, Kālidāsa is content with stating for this part that the taking of Mahēndragiri was tantamount to the conquest of the whole kingdom. The next ruler happens to be Damana of Erāndapalli. There is an Erāndapalli in the Ganjam district with which this has been identified by the epigraphists. Then follows Vishnugopa of Kānchi. Then Nilarāja of Avamukta. Kānchi is the well-known Pallava capital, and Vishnugōpa probably a Pallava sovereign. We do not know either of Avamukta or of Nilarāja. The next ruler is Hastivarman of Vengi. Vengi is the Peddavēgi, the ruins of which exist to-day, a few miles from modern Ellore ; and a Hastivarman as ruler of that place belonging to the family of Sālankayanas is known of about this period. The next ruler overthrown was Ugrasēna of Pālaka. Pālaka is a place often referred to in Pallava inscriptions, and seems to have been one of their northern capitals. It must be looked for in the region of the lower Krishna. The next ruler is Kubhera of Daivarāshtra, and Daivarāshtra has recently been identified with Elamanchili Kalingadēsa in the Vizagapatam district, with its headquarters probably at Elamanchili and then comes Dhananjaya of Kustalāpura. So far, we know nothing either about the ruler or about his capital. These southern rulers he is said to have conquered, and, when they had agreed to submit, restored them to their possessions. An opinion has recently been expressed by Professor Jouveau-Dubreuil that this is all mere fiction, and perhaps the very most that could be conceded to Samudragupta would be an invasion as far as the northern parts of the Madras presidency where he must have been stopped by the activity of the southern rulers under perhaps the lead of the Pallava sovereign for the time being. While one might readily admit the possibility of exaggeration it would be doing something very different, if this interpretation should be accepted. If it is mere meaningless hyperbole why omit the kingdoms south of Kānchi? There at least was the Pāndya kingdom which the almost contemporary Kālidāsa found it necessary to mention in the conventional *dig-vijaya* of Raghu. The fact of an invasion as far south as Kānchi must be admitted, and why Samudragupta was satisfied with the simple submission of these south Indian monarchs will be understood readily if the particular purpose of his invasion is

properly understood. We shall come to that question later. Probably he returned to his headquarters and started on a similar expedition of conquest of the kings of Aryāvartta, that is the middle region of Hindusthan usually described in Buddhistic records as Madhyadēsa. Here nine princes are referred to without specifying either the capitals or the countries over which they ruled. They were probably all of them comparatively petty chieftains who held small tracts of country under their rule on the immediate frontier of the united kingdom of Magadha and the territory of the Lichchavis. They must all perhaps be looked for in the Gangetic doab and just outside along the borderland of Central India and Rajputana. The sovereigns are in their order

Rudradēva,	Matila,	Nāgadatta,
Chandravarman,	Ganapatināga.	Nāgasēna,
Achyuta,	Nandi,	Balavarma.

Nāgasēna and Achyuta were probably the same rulers that attacked Samudragupta in Pātalipura soon after his accession. They probably held territory in the Doab. Ganapatināga was probably a Nāga chieftain who held rule further south with capital Padmāvati, near Narwa in Central India. Chandravarman was probably the same person as the Chandravarman of the inscription on the rock of Susunia near Raniganj, whose territory probably lay to the west in Rajputana. It is just possible that he carried a raid across the whole territory of Magadha in the absence of Samudragupta from his territory in the western borders of Rajputana. Of all others, we know nothing more than that they were rulers of Aryāvartta. The conquest of these rulers of Aryāvartta is said to have brought him the submission of all the forest chieftains who showed their readiness to render obedience and pay tribute without further action. Then he got his authority accepted in the five frontier kingdoms of which three were on the east and two to the north of Magadha. The three eastern were Samatata, Davāka and Kāmarūpa, embracing the territory on the east of the Ganges from the sea to the Himalayas; the two northern were the kingdom of Nepal, and Kartripura to the west of it along the foot of the Himalayas. This would bring his north-western frontier into touch with what was the territory of the Kushan empire. The frontier kingdoms were merely called upon to render allegiance and acknowledge his overlordship which would have put them in a position of more or less subordinate alliance. Then he conquered as many as nine tribes whom he laid under tribute, of whom we happen to know the location of some. These tribes were the

Mālavas,	Arjunāyana,	Yaudhēya
Madraka,	Ābhīra,	Prārjuna,
Sanakānika,	Kaka,	Karaparika.
and others		

Of these the Mālavas were probably an extensive tribe inhabiting a region which goes by their name Malwa. The Arjunāyanas were probably a tribe not very far from them. Some inscriptions of the Yaudhēyas would locate them in the territory round Biana southwards of Muttra on the borderland of the desert. The Madrakas must have been in the region occupied by the Pulkhan Sikhs in modern times. The Abhīras were an extensive tribe which occupied the territory including the whole of Bundelkhand and a very considerable part of the Central Provinces so that at one time their capital was somewhere in Bundelkhand, at another in Mahishmati on the Narbada (Māndhāta). Inscriptions refer to the Sanakānika in the region of Sanchi, but of the other three tribes we do not as yet know anything except the name.

These achievements spread his name far and wide so that distant monarchs sought his friendship and alliance. Among these distant monarchs are mentioned the—

Daivaputa,	Shahi,	Shahanushahi,
The Sakha,	Murunda and	Simhala.

Of these, it is possible to take the first three to indicate nothing more than the Kushanas. It is equally probable that these refer to three petty states which stood out as representing the dismembered Kushan empire of the previous age. The next the Sakhas and Murunda are generally taken to be separate tribes while it is possible that they were one and the same, and might refer to the Sakha-Kshatrapas of Gujarat, Konkan and farther west. The last Simhala is Ceylon and we have good reason for taking it that the Ceylonese ruler was in some kind of diplomatic relation with him from Chinese records.

The whole series of these conquests as detailed in one elaborate inscription that has come down to us of this great ruler had for their object nothing more than the bringing under the control and influence of one suzerain monarch, the whole territory included in the area which in the best of its days constituted the empire of Asoka. It must be borne in mind that this record of Samudragupta is indited on a pillar which carries on it an Asoka inscription as well. Did Samudragupta then emulate the exploits of Asoka? Did he, in fact, know the history of Asoka or the extent of his empire and could he have read the document on the pillar of Asoka? The answer to this question may be given in the affirmative for certain reasons. If you arrange the territories described in detail in the Harisēna inscription of Samudragupta in order, you will find that it more or less answers to the territory under the rule of Asoka. This may be a mere coincidence, but then why does the deliberate *prasasti* stop short in the southern invasion at Kānchi? Why does it not go farther south? In a mere exaggerated account, not

merely of his achievements but of the panegyrist's ascription of these achievements to the ruler, it would be difficult to find a satisfactory explanation that the panegyrist found some reason for stopping short at Kānchi for a mere conventional *dig-vijaya*: in fact Kālidāsa's conventional *dig-vijaya* of Rāghu does not stop short there at all, but continues on to the Kaveri and farther south to the Pandya country, and across the peninsula to Aparānta and farther westwards therefrom against the Pārasikas. So the limitation imposed here is not by any convention of the panegyrist. We may justifiably infer therefore that the limitation was imposed by the political circumstances of the time and by the actual fact of achievement of this sovereign. Samudragupta's ambition was not like Alexander's for more worlds to conquer. It was rather the ambition more well-formed than that, of uniting the territories of India that could possibly be united, under one ruler, with a view to set the whole country on a prosperous career on the basis of an efficiently protected frontier and well-ordered administration. The scientific frontier sighed for in vain by recent English statesmen was a frontier that had been achieved by Chandragupta, and probably remained under his grandson Asoka. Did Samudragupta then know the extent of the empire of Asoka? It is quite possible he did.

The *prasasti* of Samudragupta that we are discussing has in one part of it an expression which seems to give us the explanation that he possibly read the inscription of Asoka on the pillar on which he recorded his own *prasasti*. Line 27 of the inscription relates to a description of the special accomplishments of this ruler; and the details given there are that 'in his trained and cultured intellect, he put the counsellor of the gods (Brihaspathi) to shame, in the accomplishment of music, he put the divine votaries of the art Tumburu and Nārada to shame; he established his right to the title of *kaviraja*, by composing many *kavyas* which might have proved the means of living for men of learning; his wonderful and generous achievements would take long to detail for a panegyrist; he was human only to the extent of his having to carry on the affairs of the world, and he otherwise was a god, who had made the world his temporary home.' Leaving the other details which are not relevant to the discussion, the point that calls for attention is the term *kaviraja*, and what it signifies. It has generally been interpreted so far as meaning nothing more than 'a king of poets,' a term of courtesy applied to a skilful exponent of the art of poetry; but the term *kaviraja* is a technical one, and has got a meaning of its own. There are ten classes of authors of works detailed, among whom the fifth is the class of *mahakavi*. This title is given to one who has acquired the capacity to understand everything that may be written in a language, and can, in

his turn, compose any kind of specified work in that particular language. The term *kaviraja* is one of higher efficiency, and is given only to those who have attained to similar proficiency, not in one, but more than one language; and this efficiency in a variety of languages is generally limited to three, Sanskrit, Prakrit and what is called *desabhasha*, the vernacular. The way that the term is used in the record, and the description that is given of Samudragupta's title to the term indicates a proficiency in many languages, and if the many languages have to be interpreted in the usual way, it must be proficiency in Sanskrit, the Prakrit language most prevalent in the country to which the author belongs and the local dialect that may have been current at the time. The Prakrit language of Magadha must be something which came very near Pali, and if he were a man of the proficiency of a *kaviraja* it is not impossible that he could have managed to read and understand the drift of the edicts of Asoka, on the pillar at any rate, on which he had put his own inscription. Asoka's boast was that he established the *dharma*, and Samudragupta is described as *dharma-prachirabandhh*, the protecting wall of the garden of *dharma*.

There is another feature of Samudragupta's records that have come down to us which would offer an explanation equally satisfactory. Most of his coin legends have a text answering generally to the idea that by conquering the world and contributing materially to its happiness, he won heaven. His ideal therefore as a ruler was to so order his patrimony and conduct the administration as to enable him to leave this world with good deeds so well accomplished as to assure him his position in heaven. This means therefore as a first necessity the assurance of protection to the people from calamitous wars within and devastating foreign invasions from without. This could be done only by the establishment of an empire, and that empire could be established both by war and by diplomacy—diplomacy as far as it can go efficiently and war where diplomacy failed. The accomplishment of a united empire is signalled by the celebration of the imperial *asvamedha* sacrifice. Samudragupta issued a class of coins described generally as the *asvamedha* type containing a similar obverse legend to the others put in these words, “*Rajadhirajah prithvim avajitya divam jayati apprativarya viryah.*” Literally translated, it means “king of kings, having conquered the world conquers heaven—the unopposed warrior.” On the reverse is the legend “*Asvamedha Parakrama*,” the man of valour who celebrated the *asvamedha*. These legends give us the indication that Samudragupta set before himself the ideal of attaining heaven by the performance of his royal duties according to the ideals of the time. He therefore felt that he must bring about a united empire to exist, set the

zeal of the accomplishment of such an empire by the celebration of the far-famed royal sacrifice of the *asvamedha*, and by these means assured to himself the attainment of heaven in the life to come.

It was already pointed out at the commencement that it was his father Chandragupta I that set the Gupta kingdom forward well on the way to the achievement of the empire. It would have been noticed that Samudragupta lays claim to having either conquered and brought under his influence, or otherwise achieved the same object, the various areas of India under other rulers. But there is a significant omission of the area which might be described as the tableland of the Dakhan, the narrow stretch of country described as Konkan along the West coast, and Gujarat. Of these, the tableland of the Dakhan and a part even of the farther south of the Vindhya range belonged at the time of Chandragupta himself to another family of powerful rulers known to epigraphists under the name of the Vākātakas. This dynasty of rulers seems to have had their origin somewhere in the modern province of Berar, and came to prominence in the century of anarchy that followed the disruption of the Andhra empire. They spread themselves northwards and extended their territory almost up to the banks of the Ganges, and thus established perhaps a claim to a higher dignity than that of the petty monarchs of their patrimony. They did not remain content with that, and seem to have carried on extensive conquests by bringing under their rule practically the whole of the Dakhan, with as much of the Central Indian plateau as they could. The most famous among these rulers, in fact the one among them that could be correctly described as having essayed the foundation of an empire, seems to have celebrated a number of sacrifices that symbolised the establishment of an empire among them, the *asvamedha* itself, and assumed the title *Samrat*, one of the various royal titles significant of empire. But curiously enough his grandson who succeeded to the throne after him drops the title as the inscriptions of the family clearly indicate, and this must have been due to some compelling circumstances, the details of which the records do not vouchsafe to us. It seems very probable that the rise of Chandragupta to power and influence made it impossible that the Vākātakas could go forward on a career simultaneously. Either as a result of war therefore, or by a stroke of diplomacy Chandragupta managed to get Rudrasēna Vākātaka, the grandson of the great Pravarasēna I give up the title and remain content with that of *Maharaja* as the ruler of his ancestral kingdom which at the time must have been a fairly extensive one. If this was possible it could only be because an empire was felt to be a general necessity, and the only question was among the competing claimants which of the two was likely to achieve

it and maintain it efficiently. If Chandragupta had achieved this by a stroke of diplomacy, his son Samudragupta had only to spread his influence farther over territories which had not yet come to acknowledge the overlordship of Chaudragupta; and that seems precisely what Samudragupta did. Samudragupta must have set about it systematically having made up his mind beforehand to celebrate the *asvamedha* in due form, and make it really symbolical of the establishment of the empire. Hence the great importance that he attaches to the celebration of the *asvamedha* and the conquest of heaven by the conquest of the earth, which his coin-legends unmistakably indicate. According to the most accepted canonical works the *asvamedha* can be celebrated for a variety of objects. An *asvamedha* is celebrated for the purpose of going to heaven merely as several sovereigns before his time are said to have done, to give a historical example, for instance, Sūdraka, the author of the drama "the Little Clay-cart." It may be celebrated for the attainment of a son as in the far-famed celebration of Dasaratha for the purpose. It may be at the end of one's career as in the case of the Pāndava brothers at the end of the war as a ceremony of expiation for such sins as might have been committed in the prosecution of a war of conquest. Or, it may be for the attainment of the empire as in the case of the celebration of a similar ceremony of the Rājasūya by the Pāndavas in their career earlier. Gupta inscriptions generally describe the *asvamedha* as one that had long fallen into desuetude (*chirotsanna*). *Chirotsanna* would literally mean, long decayed or given up, for as a matter of history we do know that after the days of Asoka, who, in his Buddhist fervour, put an end to it, there were several celebrations and several celebrants. Pushyamitra is said to have celebrated it; his contemporary Kharavēla of Kalinga seems to have celebrated something akin, and a Sātavāhana ruler of the Dakhan, the great Satakarni lays claim to having done it equally. It would therefore be difficult to understand *chirotsanna* in the sense that it was given up for long. The term *chirotsanna*, however, is found used in the same connection, of the *asvamedha* in the Satapatha-Brāhmaṇa itself where it is explained in the sense that it had lost some of the elements constituting the sacrifice, and therefore a sort of expiatory ceremony had to be performed. That means, it is an old-time ceremony, which had lost some of the details of its performance even so long ago as the time of the Satapatha-Brāhmaṇa. The ceremony is brought to a close by the performance of a special *atiratrasṭoma* as it is called, which is a ceremonial apology for the shortcomings in the performance of the elaborate sacrifice. It is just possible that in the Gupta inscriptions it has that meaning; but there is perhaps a little more in it than is implied in this

explanation. At the time that Pushyamitra and others are said to have performed this sacrifice, the position of the celebrants could not be regarded as that of unquestioned suzerainty. Pushyamitra had to maintain a struggle through life against the Greeks on the one side, the Kalinga ruler on the other and the Sātavāhana on the third; and among the three Indian rulers, all the three of them lay claim to having celebrated this sacrifice, which, as they celebrated it, could not be regarded as in any sense, a sacrifice significant of an established empire. If the celebration had been done with other objects in view, the *asvamedha* could have been celebrated by them all at the same time. Even Pra-varasēna's claim to have celebrated an *asvamedha* could, in the circumstances, be regarded as of qualified application as an imperial sacrifice. Hence the *chirotsanna* here might mean that the *asvamedha* sacrifice was not celebrated for long as a full detailed imperial sacrifice, and Samudragupta might lay claim to having done it, it may be since the days of the famous celebration of the Rājasūya by Yudhishitira.

A careful study of lines 23 to 28 of the Harisēna epigraphi will show clearly that all that is said above is not drawn from one's imagination. Line 22 ends that 'the severity of his orders was easily met by respectful obeisance, dutiful performance of orders issued and by the payment of tributes agreed to.' His fame spread to the ends of the world and received its satisfaction by the re-establishment in their possessions of the various monarchs, who had lost their possessions, or were otherwise forcibly deprived of them. Monarchs of distant countries apparently not among the conquered such as the Daivaputra, Shahi, etc., sent to him for his gracious acceptance, beautiful girls and other objects of presentation, with a view to obtaining charters, marked with his *garuda-seal*, for the enjoyment of their own territories, thus making the valour of his arm the protecting wall of the world. He met with no warrior to oppose him in the world by many good deeds and by the possession of many praiseworthy qualities he brought the fame of the other monarchs low indeed in public estimation. He was master alike in bringing about the prosperity of the good and destruction of evil. He was a man difficult to comprehend by the mind. His heart melted easily at the exhibition of sincere respect. His pity was so great that he granted many cows, and hundreds and thousands of money. His mind was full of solemn vow to raise the low and humble, the helpless and the suffering. It is only war that excited him. He was like the god of wealth (Dhanada), the god of righteousness (Varuna), the god of rule or protection (Indra) and the god of punishment (Antaka), all in one for doing good to the world. His plenipotentiaries were constantly engaged in the restoration, to their wealth and former position, of the many kings

whom he had conquered by the force of his arms. All these seem intended to exhibit, by the way that he exercised his authority, that he attained to the unquestioned enjoyment of it. While therefore, on a superficial reading, these might seem to imply a thorough disciplinarian to whom severity was no matter of concern, a close examination of the passage shows unmistakably that while his exercise of authority was certainly firm, it was always tempered with mercy; at any rate, that is the idea that the writer of the *prasasti* wants to convey to his readers.

This great ruler is described at the end of the passage as the great-grandson of *Maharaja* Sri Gupta, grandson of *Maharaja* Sri Ghatotkacha, and son of *Maharajadhiraja* Sri Chandragupta, born of the *Mahadevi* Kumāradēvi, and therefore the daughter's son of the Lichchavis. He is himself described as *Maharajadhiraja* Sri Samudragupta. In the estimation, therefore, of Harisēna the author of the document, both the great-grandfather and the grandfather were only *Maharajas*, and it was the father that became the *Maharajadhiraja*. This feature has hitherto been interpreted as involving no particular difference in significance. The conclusion has been arrived at with more facility than logic that it was Samudragupta that was really the first great ruler who attained to the dignity of *Mahārājādhirājā*, Chandragupta being so described as a matter of courtesy. If inscriptions are to be interpreted in that fashion it would be difficult to understand why that same courtesy should not lead the author to describe the grandfather as well as *Mahārājādhirājā* and the great-grandfather. If Samudragupta had made up his mind not to issue an official document, which incidentally describes his whole position and ancestry, one might possibly entertain the notion, even though it would perhaps be at the sacrifice of truth, but the document under examination is a deliberate *prasasti*, and therefore of a peculiarly historical character. A deliberate change from the position of *Mahārāja* to *Mahārājādhirājā* must have been made to convey what it signifies, and seems an unmistakable indication that it was Chandragupta I that raised the family to the higher dignity, whatever Samudragupta's achievements may have done to complete the work of his father. Nor, could this change of dignity be regarded as that of a ruler who merely called himself *Mahārājādhirājā* as the very change of title would have been challenged at once, as in the previous case perhaps of the Sunga monarch Pushyamitra; the Vākātakas were there to do it with adequate power, and perhaps even a justifiable historical position. It is therefore clear that Chandragupta raised himself to the higher position of a paramount sovereign, and Samudragupta merely gave the finishing touches necessary for its acknowledged exercise. The pillar was set up as if to reach heaven itself and carry there the fame of Samudragupta which had

already spread throughout the world. This document is described as a *Kavyam*, and was composed by one of the courtiers who describes himself as a Mahādandanāyaka who might be a commander of the forces or a judicial officer; Kumārāmātya, the son of a minister brought up along with the prince and who held the position at the time of minister for peace and war; Sandhi Vigrahika. His name is Harisēna, and he was the son of Mahādandanāyaka Dhruva Bhūti, who is described as a Khādyā-atapākika. This term has not been understood. One noteworthy feature is that Harisēna describes himself as a servant of the great monarch, whose intelligence developed itself by the opportunity he was graciously accorded of being in close attendance upon the person of the sovereign. This was apparently meant as a tribute to the superior learning of the monarch himself, indicating thereby clearly that the character for learning given to him was not meant in mere compliment.

It will thus be seen that Samudragupta was a sovereign who set up before him a high ideal as a monarch according to the notions of the time. What is perhaps more, that he made an honest and earnest effort to come up to the height of the ideal in actual life. It should be the most inappropriate description of him to call him "a Napolean who regarded kingdom-taking as the duty of kings".

S. KRISHNASWAMI AIYANGAR.

WHAT TO EXPECT OF POETRY?

THERE are numerous works in Sanskrit on Poetics, and with their help chiefly it is proposed here to find an answer to the question: What are we to expect from Poetry? The consideration of this question presupposes a knowledge on our part of what Poetry is; but we need not attempt anything so rash as to define that term. There are, as may be expected, several definitions of Poetry to be found in these ancient books. They are neither better nor worse than those one meets with in modern works on the subject and we do not therefore cite any of these definitions, but shall content ourselves merely with pointing out the meaning of the Sanskrit word for Poetry, *viz.*, *kavya*. This word, it may be noted in passing, is equally applicable to verse as well as to prose; and it is explained as *kavi-karma*, which amounts to saying that Poetry is what the poet writes. So far as the nature of Poetry is concerned, this explanation is not very illuminating. It is useful, however, in this respect that it shifts the question from Poetry to the poet; and it seems much less difficult to say what the Indians thought of the poet than of Poetry. The common view of the poet is to regard him as a creator or maker; but there is also another, according to which his foremost aim is not to invent anything new but to represent life as it is—‘to hold the mirror up to nature’ as it is said. Of these, it is only the former view we come across in Sanskrit Poetics. The poet as conceived here is not to rest content with merely copying nature or life. His skill does not consist in selecting the salient features of an existing situation and portraying them exactly as they are, but rather in creating new situations. These situations will of course be modelled upon nature; for the ideal, as Bain long ago observed, needs, like paper-currency, to rest always on a sufficient basis of the real. But at the same time, the poet’s work involves the invention of many new elements; and it is for this reason that in Sanskrit literature the poet is often found compared to the Creator and the Creator to the poet.

So much about the Indian conception of the poet. But it takes two to make a poem, as some one has said; and we must now add a few words about the other party to it, *viz.*, the reader of poetry. A fit reader of poetry is known in Sanskrit as *sa-hrdaya* which word will tell us all that we need know about him. The second element of this compound—*hrdaya* means ‘heart’ and the first stands for *samana*, *i.e.*, ‘same’ or ‘simi-

lar,' so that the whole word signifies 'one of similar heart.' That is, the poet and the reader of poetry are of the same temperament. Both possess what is known as the 'poetic heart'; and its possession is the most important qualification of the reader of poetry. This identity of temperament between the two is assumed throughout Sanskrit Poetics and the process of appreciating Poetry is looked upon as essentially the same as producing it. Hence we frequently find Sanskrit writers describe the poet and the reader of poetry by the same set of terms. There is perhaps nothing very novel in the kinship here noticed; the point is that it receives particular emphasis in Indian works. The identity of temperament between the two means no doubt a certain restriction of the circle of competent readers of poetry; but there seems to be a good deal of truth in the restriction, for there is no warrant for assuming that the æsthetic sense is universal.

In this affinity between the poet and the reader of poetry we find a clue to the answer to our question. Every lover of poetry in this view is virtually a poet. Both possess, as already stated, the poetic heart, tho' it pulses much lower in the one than in the other. The poet, while he is under the finer influences of life, feels so intensely and vividly that his feeling spontaneously finds utterance. We, on the other hand, under similar circumstances are almost dumb. The lack of expression in us does not, however, necessarily mean that there is nothing to express. We also respond to such influences in our own way, but the resulting experience is faint and vague—so much so that we can hardly call it ours until it is properly articulated for us by the poet. Poetic feeling without poetic expression—that is why we do not by ourselves reach the truly poetic level, that is where we stand in need of the poet's assistance. The tiny stream also is to reach the ocean, but it is too feeble to do so without mingling with a mighty river. So we may say that it is for a fuller self-revelation that we seek the aid of Poetry. This is, however, only a part and, comparatively speaking, a minor part of the answer to our question. It is true that the thoughts and feelings enshrined in Poetry are sometimes the same as ours, finding clear and beautiful expression there; yet surely it would be absurd to say that we always went to the poet to have our own experiences unfolded to us. There is another and a far more important answer to our question and to discover it we have to recur to the conception of the poet as a creator.

What is the significance of this conception? and what in particular is the point in comparing the poet to the maker of the universe? We need not discuss here whether the world as created by God is perfect or imperfect. What matters for us now is that the poet's world should be perfect. If the world of nature also is perfect, it is certain we commonly miss the

perfection or at best only catch a passing glimpse of it. This tragic aspect of our life has been splendidly expressed by a modern English poet in the following lines:—

“Fate from an unimaginable throne
 Scatters a million roses on the world,
 They fall like shooting stars across the sky
 Glittering. Under a dark clump of trees
 Man, a gaunt creature, squats upon the ground
 Ape-like and grins to see those brilliant flowers
 Raining thro’ the dark foliage; he tries
 Sometimes to clutch at them, but in his hands
 They melt like snow. Then in despair he turns
 Back to his wigwam, stirs the embers, pats
 His blear-eyed dog and smokes a pipe and soon
 Wrapped in a blanket, drowses off to sleep.”

It is the peculiar glory of the poet that he never loses sight of these ‘brilliant flowers.’ He has always his eyes on the joy and beauty of the universe; and in his poems constructs for us new situations through which we are enabled to see and understand them. The function of the poet in this respect may be illustrated by that of a scientist who, discovering for himself a truth of nature, hidden from the common view, devises a special apparatus to enable others to see that truth as clearly as he himself has done. It is not the truth of nature that is invented here but only the medium through which it is revealed to us. Similarly in creating a new world, the aim of the poet is to reveal to us the inner significance of the world of nature. This conception of the poet as a revealer is implied in the Sanskrit word for him, *viz.*, *kavi* itself, which occurs as early as the Rig-Veda. Philologists trace the word to a parent root from which the English verb ‘show’ also is descended. Thus *kavi* literally means ‘one that shows’ and he who shows must necessarily have himself *seen*. We may in this sense understand our word *kavi* as the equivalent of ‘seer.’ He portrays nature, not as it is commonly known, but as it ought to be; and it is the vision of the true world we get through his work that is, according to this view, the source of our satisfaction in reading Poetry. If instead of this we suppose the world of nature to be imperfect and to contain evil with good, ugliness with beauty, the poet has to fashion something better than it, so that in his work at least man may find joy untainted by sorrow. This is the implication of passages in certain works on Sanskrit Poetics where the poet is contrasted with the Creator. The *Kavya-prakasa*, one of the best known works on the subject, begins with such a contrast and describes the work of the poet in such well-chosen words that he is easily made out to be

the more skilful of the two. According to both view-points, the poet ought to be a creator—only while in the one, the forms he creates disclose to us the truth of nature commonly obscured, but yet there; in the other, they present for our contemplation something that is superior to nature and is not there.

If such be the impulse behind Poetry, what is it that we may seek from it? The answer must be two-fold in accordance with the two-fold explanation we have just given. If it is from an optimistic standpoint that we look at it, it is to draw ourselves closer to the intrinsic truth and beauty of the universe that we seek the aid of Poetry: if from the pessimistic, it is to draw ourselves away from the sufferings and perplexities of actual life. In either case we are transported as it were from our usual surroundings and, moving in a world which the poet's fancy has called into being, we forget ourselves. Then we resemble the poet most: the only difference is that while he attains that condition spontaneously, ours is induced by him. It is this transcending of self-consciousness—this migrating from our narrow self, to put it otherwise, that constitutes the secret of æsthetic delight. The highest function of the poet who easily rises to this mood is to communicate the same to us. As the alchemist's herb is said to change even a common thing at once into gold, so the poet metamorphoses us instantly. He cannot indeed pass on to us his inspiration, but the poetic experience itself—its result, he can; and thereby he becomes our supreme benefactor. It is this wholly unique experience that is termed *rasa* in Sanskrit; and it is for attaining it that we almost instinctively go to Poetry. That is the chief answer which we find in Sanskrit Poetics to our question: What have we to expect of Poetry?

Poetry then is to be regarded first and foremost as a means of securing a spell of detachment from common life and not for any lessons or 'criticism of life' it may contain. There is no doubt that it has many such lessons for us and that their value is great. But they are only the further good resulting from poetic experience and not the good which that experience itself is. Poetry represents an attitude; it also yields certain results; and the attitude is not less important than the results which follow from it. The time we devote to the reading of Poetry, we must never forget, is itself a part of our life. It is necessary to lay stress on this point, for there is commonly some confusion between the reading of poetry and its uses. Indian writers have always clearly discerned the difference between the two and have recognised the reading of poetry as more an end in itself than as a means to something else. That is the underlying truth of the conception of *rasa*. This *rasanubhava* or æsthetic experience is to be preferred not only to whatever good may result

from it, but also, in one sense, to the very writing of poetry; for as a Sanskrit *sloka* has it—'If you are not conversant with the best of poets—the kings among them—how can you purpose to write poetry? and, if you are, why should you?'

M. HIRIYANNA.

TO THE SEA.

Great sea, that art so beautiful and cold,
Majestic, mystic, mighty and aloof,
Physician, that with fingers cool doth hold
The pulse of labouring man, thyself grief-proof!
Stronger art thou than death; thou feed'st on death;
Thou takest with a kingly grace; thou givest
Rest and deep peace to frames bereft of breath.
Fair comfort pulsing thro' the life thou livest.
Serene and steadfast, give me of the power,
The cosmic might restrained within thy breast,
Gathered through all the ages without dower
Or home in human mind; that so the rest
Of life alternating with death, may leave
A comfort on my brow thro' which no grief can cleave.

JEHANGIR J. VAKIL.

DOMESTIC RITES OF THE JAINAS * (II.)

16. MARRIAGE.

As among the Brahmins, so among the Jainas also, the rule that the bride and bride-groom should belong to different Gotras or families is strictly observed. The ten names enumerated by them as the originators of their Gotras are (1) Gautama, (2) Kasyapa, (3) Srivatsa, (4) Bharadvaja, (5) Atreya, (6) Prajapati, (7) Kaundinya, (8) Vasishtha, (9) Kanya, and (10) Bhargava. It is insisted that the bride selected should belong to none of the five classes, such as (1) mother, (2) sister, (3) daughter, (4) mother-in-law, (5) and the daughter of a sister or daughter-in-law. The meaning appears to be that the bride selected should be a maid deserving no such appellation as mother, sister, daughter, mother-in-law, or the daughter of a sister or daughter-in-law. Daughters of a maternal uncle or paternal aunt do not come in the list of prohibition. It is also insisted that she should be very young, *i.e.*, one that has not attained puberty.

On the day before that fixed for the marriage, the bride-groom performs the worship of the planets in his own house. On the day of marriage two elderly women whose husbands are alive take two vessels and go accompanied by an umbrella-bearer, whisk-bearer, and drummer and others, to a tank or river and having worshipped the water-goddess and filled their vessels with water, return to the house of the bride and place them in front of the marriage platform by the side of oil-lamps and grains. In front of these vessels there is placed a circular stone together with jaggery, jiraka, salt, coloured rice, all wound round with cotton thread. There are also placed five vessels filled with earth, in which five different grains are sown. The same custom is also observed in the house of the bride-groom. After the Homa-rite is performed, the bride-groom dines in his own house with his relatives and priest. After dinner is over he goes accompanied by an umbrella-bearer, whisk-bearer, conveyances, drummer and other followers and is received by a similar band coming out of the bride's house. Entering the bride's house he sits on a carpet spread on the marriage platform already described. Then he sits on another seat offered to him by the father, brother, or a kinsman of the bride. Then water is brought to him to wash his hands and feet. He thrice washes his feet accordingly and

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taking water in the palm of his two hands held together with fingers closely joined and bent inside and looking at the water a moment, he lets the water drip down the sides of the fingers loosened. Then after doing thus thrice and taking some more water he sips it thrice. Then uttering a Mantra, he takes some curd out of bronze vessel brought to him and drinks it, an act usually called Madhuparka, honey-drinking. Then putting on new garments and ornaments presented to him he gives his own garments to the brother of the bride. Meanwhile the bride who is fasting so long puts on new dress and ornaments and sits facing the bride-groom who himself sits on a similar heap of rice facing the east, a curtain being drawn between them. A number of benedictory verses are then sung and the curtain is removed, allowing the bride and bride-groom to look at each other for the first time. Then the bride-groom besmears the bride's face with a little jaggery and attaches theron jiraka and coloured rice. He also puts a garland round her neck. The bride also does the same to the bride-groom.

Then the bride-groom declares:—"I, the great-grandson of so and so, the grandson of so and so, the son of so and so, and named so and so woo and choose the great-granddaughter of so and so, the granddaughter of so and so, and named so and so."

Then the maternal uncle (? father) of the bride declares "I, the great-grandson of so and so, etc.—hand over in marriage to you, the great-grandson of so and so—the great-granddaughter of so and so—whom you have wooed and chosen."

Then he holds her hand which her father placing a gold coin together with coloured rice and water, stretches to him and when her father has said, "protect her, adhering to the laws of righteousness, love, and wealth," he replies saying, "I protect her observing the laws of righteousness, love, and wealth."

Then taking a thread thrice as long as their respective height from their feet to their navel pit, and making it three-fold and again twisting it five-fold, the priest gives the thread of the bride's measure to the bride-groom and that of the bride-groom to the bride. Each of them takes the thread and binds the wrist of each other with it aftear colouring it with moist saffron powder.

Then the bride-groom rubs the palm of the bride with his hand dipped in clarified butter mixed with milk and puts some white rice grains on it. Then after receiving a few drops of water sprinkled over the rice by her father, the bride throws the rice grains on the head of the bride-groom. This is done twice. The same is repeated by the bride towards the bride-groom. Then binding the edges of their garments together the couple look at the two water vessels and seat themselves on

a carpet spread to the west of the fire, when the priest performs the Homa rite. Then the bride-groom sits between the fire and the bride and holding her right hand goes towards the fire and coming to the right of the bride makes the oblations of cooked rice into the fire. Then the brother of the bride puts into the hand of the bride a handful of fried grain after smearing the palm of her hand with clarified butter. The bride pours the fried grain into the hand of the bride-groom. He puts it into the fire and placing his palms above the smoke rising from the fire, rubs his face with the palms. This is done twice. Then he takes the hand of the bride and leading her towards the stone placed to the north of the fire causes her to plant her two feet and stand on it and descend again. Then he with the bride goes round the fire and the water vessel kept in the north-eastern quarter, taking care to avoid going round the stone. He performs this perambulation thrice. Then the bride takes the winnower with fried grain and puts the whole of the grain into the fire. Then seven heaps of coloured rice are placed one foot apart from each other between the fire and the water-vessel in the north-eastern quarter. The couple then walk seven steps one behind the other, treading over the seven heaps of coloured rice and standing together on the seventh heap, they bend their heads together and sprinkle their heads with the water contained in the vessel. Then they perform the final oblation into the fire and having received the benedictions of the assembly look at the two water vessels. That day they eat rice gruel mixed with sugar.

On the fourth day of the marriage, a barber cuts off their nails, rubbing their head with oil. After this they bathe in warm water accompanied by a young boy. Then they adorn themselves and perform the offering of fried grain into the fire, when the bride-groom ties to the neck of the bride an auspicious thread. Then having garlands of flowers round their necks, they make three perambulations round the fire and perform the final oblation.

Then in a square pavilion with four doors to the north or the east of the fire place, where on the surface an eight-petaled lotus flower is drawn in five colours and where five water vessels are also placed, the bride worships Vasuki and other eight Nagas in the eight petals and makes offerings to them.

After this the mother of the bride enters into the pavilion either through the eastern or northern door and goes out of it either through the western or southern door respectively, looking at the water vessels.

Then the couple remove the threads tied round their wrist and put them into a vessel filled with milk and coloured rice. Then coming to the fire they put a pointed fuel into it and placing the fire into a bamboo tube preserve it.

After the usual offerings to Vasuki and other Nagas are made, there ensues between the bride and the bride-groom an interesting conversation in which the bride's brother and the priest take part. The dramatic interest of the conversation lies in the ethical exhortation made by the priest to the couple.

Addressing the bride's brother, the bride-groom says:—

"Will you, my dear brother-in-law, kindly ask your sister why your sister accompanied me so far and stopped?"

The bride replies:—

"The genealogy of your family is drawn from S.E. to S.W. and that of mine from N.W. to N.E. I want to know the significance of this from the priest."

The priest says:—

"The genealogy of your husband is one of Gautama, Kasyapa, Srivatsa, Bharadvaja, Atreya, Prajapati, Kaundinya, Vasishtha or Kanya, the Sutra being that of Bodhayana and Sakha being called Vrittanuyoga. Women will have the genealogy of their husbands for their own. But their deities will differ. They are four: eternal deities, deities of good work, deities of household, and family deities. The Arhats, teachers and preceptors, and the good are eternal deities. The deities of good work are those of the three wheels, three umbrellas and the three fires. The household deities are Visvesvara, Vaisravana, Dharanendra, and Sri. The family deities are Chakrini, Jvalini, Padmini, and others. The first are worshipped for emancipation; the second for good rite; the third for good offspring, long life of the husband and prosperity; the fourth for the prevention of calamities."

Then addressing the assembly the priest discourses on the six forms of marriage, Brahma, Gandharva, Svayamvara, Rakshasa, Asura, and Paisacha and exhorts the couple in words similar to those in which Kanya has addressed Dushyanta and Sakuntala in the Sakuntala drama.

Then when asked by the bride-groom to follow him, the bride says:—

"How can I follow you, my love, when for the past four days since my father made a gift of me to you before the deities, the fire, and the assembly of the Dvijas, you have not exchanged a word with me? You have kept your vow of silence towards me and have not been kind enough to give me betel-nuts, or garment or a jewel."

Then the husband requests her to forgive him and praising her for her beauty entreats her to follow him. The bride still declines to comply with his request for the reason that he has not as yet expressed sweet words to her. The bride-groom then says:—

"I bow to thee, my dear, and I adorn your feet with flowers.

Please give up your genealogy and adopt mine." To this the bride replies saying: "It is only to find out your attachment to me that I tried to examine you in the presence of my relatives. I am come to know that you are devoted to me and follow you faithfully."

Then follows the moral exhortation to the couple by the bride's father, at the close of which the couple put flower garlands round the neck of each other and go in procession.

Then having worshipped the assembly of the guests and received nuts and betel leaves given to them by the honoured guests in the assembly, they go round the village and eat rice-gruel mixed with sugar.

On an auspicious day the bride-groom accompanied by the bride and his kinsmen leaves for his house and arriving at his house gives an entertainment to his kinsmen.

There is some difference in the names given to the rites and also in the manner in which the rites are performed by the Jainas of both the Digambara and Svetambara schools of Northern India. The sixteen domestic rites of the Northern Jainas, whether Digambaras or Svetambaras, together with the rites to be observed by Jaina Yatis or ascetics in view of attaining the title of Jaina Acharya or preceptor are all exhaustively treated of by Vardamana Suri in his *Achardinakara* written in Vikram 1468, as stated in the colophon of the work. I cannot be too thankful to Sastravasara Jaina Acharya Vijayadharmasuri of Bhavanagar for the loan of his own manuscript copy of this excellent work. Among the customs peculiar to the Northern Jainas, the following are worthy of notice:—

The first rite called *Garibhadhana* is performed by them in the fifth month of pregnancy instead of in the fourth day after the first menses. In connection with this and other rites the most important religious custom observed by them is the ablution of an image of Jina, probably having four faces, with water collected from various sources. This ablution water is collected in a separate vessel and is used in sprinkling over the person or persons that are to go through the rite. In addition to this, worship of Kula devatas or family goddesses is also performed. The second rite called *Pumsavana* or causing the birth of a male child is usually performed in the eighth month of pregnancy. In connection with the third rite called *Janma* or birth, washing the child with ablution water, casting of a horoscope and the binding to the child's wrist of an amulet made of the mixture of the powders of sandal wood, *Aegle Marmelos*, ashes, white mustard seeds and salt kept in a piece of silk cloth and tied round with a black thread, are all carefully performed. Expiatory rites to avert evils due to inauspicious stars on the occasion of birth are also performed when necessary. On the third day

after delivery the rite of showing to the baby the image of Jina, the sun, and the moon is performed, while the same rite is performed by the Jainas in Southern India in the fourth month after the birth. On the fifth day the rite of suckling the infant is observed. On the sixth day after birth a new rite called the worship of the sixth day goddess unknown to the Southerners is performed. A few women who have their husbands and children alive and who are related to the woman in confinement spend the whole night of the sixth day in singing auspicious songs. On the eleventh or twelfth or any other later day the rite of getting rid of the pollution due to the birth is performed in accordance with family customs. On the day the image of Jina is worshipped and a dose of what is called Panchagavya, a mixture made up of cow-dung, cow's urine, cow's milk, curd, and butter is drunk by every member of the family. On the same day a name is given to the child after worshiping the image of Jina. When the child has grown six months old, the rite of feeding the child is performed and in the child's third, fifth or sixth year the rite in connection with boring a hole in the child's ears is solemnly performed. The eleventh ceremony termed shaving the child's head leaving a blade of hair in the middle of the head in the case of the first three castes and the whole head in the case of the Sudras is performed with much grandeur.

In connection with the rite of Initiation which is usually performed before the sixteenth year of the person to be invested with the sacred string the following peculiarities deserve special attention:—

(1) Significance of the sacred strings.

(2) Difference in the number of sacred strings according to difference in caste.

(3) Reclamation of those who have transgressed social or caste customs and contracted vicious habits.

(4) Cessation of vow and the gift of a cow.

Though it appears from the Jaina work entitled *Dvijavadana chapeta*, 'A slap on the cheek of the twice-born' that at the outset the Jainas made a strong protest against the caste distinctions of the Brahmans, they seem to have been obliged later to retain those distinctions in consideration of the difficulty experienced in reclaiming some persons from their habitual depravity. Among the Jaina Brahmanas, some are considered to have sprung from the family of Ikshvaku, some from Narada and others are regarded either as the eastern or the northern Brahmans. Among the Kshatriyas are those that claim descent from Jina, Chakri, Baladeva, Vasudeva, Sreyamsa, Dasarna and others. Among the Vaisyas are counted the Kirtikas, the Sreshthis, the Kamadevas and others. Those that call themselves Anandas are good

Sudras. Those that are lower than these are called Vanikas (merchants.)

The Jainas do not, however, seem to acknowledge caste by birth. They consider that caste comes by initiation. Still fitness for initiation is considered by them to be dependent upon birth. Accordingly Jaina Brahmins are given three sacred strings, Kshatriyas two, Vaisyas one, Sudras an upper garment and those that are lower than the Sudras have to obtain permission to wear an upper garment. For the formation of a sacred string, a thread (gold, silver, copper or cotton) 81 feet long is taken and made into a single threefold thread 27 feet long. This is again made three fold, the two ends being tied over the three turns. Brahmins have to wear three of such strings, there being on the whole nine strings, the Kshatriyas only two, there being only six strings, the Vaisyas only one with three strings. The nine strings are taken to symbolise the three gems of the Jainas True Revelation, True Knowledge and True Observance (Samyagdarsana, Samyajnana, Samyakcharitra) in their three-fold aspects, *viz.*, (1) observance of the three gems by oneself, (2) teaching others to observe them, and (3) permitting the fit to attempt to observe them as far as possible. Thus the nine strings represent (1) the learning of true revelation, (2) the acquisition of true knowledge, (3) observance of the true precepts, (4) teaching the revelation to others, (5) causing others to acquire true knowledge, (6) causing others to put the precepts into practice, (7) permitting the fit to see the true revelation, (8) permitting the same to acquire some portion of the true knowledge, and (9) permitting the same to practise the precepts as far as possible. As symbolising the nine duties which the Jaina Brahmins have to observe, they have to wear nine strings made of three pieces of threefold strings each. The Kshatriyas have to wear only two pieces of three strings each, as they are not and cannot be expected to permit others to observe the three gems. The Vaisyas have to put on only one piece of three strings, as they cannot be expected even to teach the three gems to any one else.

The person to be initiated is given a thread of Munja grass to tie round his waist, a piece of loin-cloth, a stick of Palasa tree and the sacred string to put on. Then the priest teaches him the moral precepts and the initiated is made to take a vow and promise the observance of the moral precepts. He is commanded by the priest to do, to cause others to do, and to permit the fit to observe as far as possible all those deeds which are approved of and to stay away from such as are condemned. He is also made to say that he will help not only himself, but also others in attaining emancipation. If the person initiated happens to be a Brahman, he has to put on three pieces of three strings each and observe

the nine duties referred to above. Before putting on the thread the boy is asked to declare that so long he has belonged to no Varna or caste and has been living a life with no religious or moral restraint. After investiture of the sacred string he says that he has been taken into the fold of a religious order with serious obligatory duties to be discharged. The sacred strings worn by him are constant reminders of his duty. Soon after his initiation, he has to begin his study and spend a fixed number of years in finishing his course, as is the case with the Vedic Brahmans. Thus the rite performed at the commencement of study is the thirteenth among the sixteen domestic rites of the Jainas.

As a different form of the rite of Initiation, there is the rite called Vatukarma by which out-castes, Buddhists, Naiyayikas, Charvakas, Vaisesikas, Sankhyas, actors, artisans, dealers in scents, beetle leaves and flowers and other persons following condemned professions are all admitted in the Jaina order. After such persons are duly initiated, the teacher addressing the initiated expresses the following Mantra:—

“Thou art unrighteous, (but now) thou art righteous; thou art low-born, (but now) thou has become high-born; thou art an atheist, (but now) a theist; thou art a Saugata, a Naiyayika, a Sankhya, or a Charvaka, (but now) with this sacred string thou art empowered to attain the bliss.”

Evidently this is a sort of baptism performed at the time of conversion to Jainism.

After studying a few years under a teacher, the student performs a rite called Vrata visarga, abandonment of study and makes the gift of a cow to his teacher.

In connection with marriage which is the fourteenth among the sixteen domestic rites of the Northern Jainas, Vardhamana Suri mentions in his *Acharadinakara* some customs which are peculiar to the north-erners and says that apart from local differences, different families in the same locality observe different customs. A few years, months or days before marriage in the real sense of the word is performed, the ceremony of betrothal (Kanyadana) which is regarded as being almost equal to marriage is performed. This consists in giving to the bride-groom cocoanut fruits, beetle nuts, sacred string, rice grains, green grass, and saffron powder in a plate by the relations of the bride and in giving similar things together with jewels and clothings to the bride by the relations of the bride-groom. A formal declaration of the marriage of the daughter of such and such a man with the son of such and such a man is also made and a marriage bond (*Lagnapatrika*) is written specifying the date of formal marriage. If unfortunately the bride-groom dies in the interval, the fate of the bride is sealed and she has to remain a widow.

for life. The author of the *Acharadinakara* quotes an ancient verse in support of this cruel custom:—"Once do the kings speak; once do the learned say; once is a girl given in marriage; these three things are done only once."

For seven days before and after the marriage, the Kulakaras or patriarchs seven in number are worshipped in the bride-groom's house and ancestral mothers are worshipped in the bride's house. During these days relations and guests are entertained in the houses of the bride and the bride-groom. Ganapathi and other gods are also worshipped in both the houses. If the bride and bride-groom happen to live in different villages, then the bride-groom mounted on an elephant, horse, or any other conveyance makes a journey to the bride's place accompanied with his relatives and priests and music band. After his arrival at the place he is duly received by the bride's party and led in procession to the bride's house. At the door of the house a lady brings a burning splinter in a potsherd with a few grains of salt sprinkled over it and places it to the left of the bride-groom at the door. Another lady brings a churning rod covered over with an yellow piece of cloth and touches thrice the forehead of the bride-groom with one of its edges. Then the bride-groom breaks the potsherd by kicking it with his left leg and enters into the house. Then the worship of the images of Jina together with oblations into the fire are made. Amulets with yellow thread are bound to the wrists of the couple. Four handfuls of fried grain are poured into the fire. The bride is given over to the bride-groom after formal declaration of the names of their ancestors and immediate parents of the couple. The same night the pair begin to live their wedded life together and lie together on the same bed.

Though no marriage seems to be necessary for a prostitute woman, the custom of marrying the prostitute's maiden daughter to a paramour is also recognised by the Jainas.

The fifteenth rite is that performed by a Jaina who after performing the first fourteen rites and living a householder's life is desirous of attaining to heaven after death. This rite is called *Vrataropa* or taking the vow of a Jaina ascetic and living on alms with mind devoted to the worship of Jina.

The sixteenth rite is the funeral rite performed on the death of such an ascetic before he has gone through all the stages of the ascetic order and attained the position of a preceptor in this world.

THE MODERATION FORMULA IN THE S.S.L.C. SCHEME.

IT is the object of the present note to discuss in some detail the implications, mathematically deduced, of the well-known moderation formula $\frac{bx+ay}{2a}$ and its variant $\frac{bx+ay}{a+b}$ recently suggested in the course of the deliberations of the special committee for the revision of the S.S.L.C. scheme in Mysore. The symbols, a , b , x , y in the formula stand for the Form-average, the School-average in the public examination, the candidates' marks at school and at the public examination respectively. The symbols being explained, I believe there is no harm in conducting the discussion, now and then, in algebraical language for the sake of brevity.

1. If $x=y$, $\frac{bx+ay}{2a}$ becomes $\frac{(a+b)x}{2a}$ which is greater or less than x according as $a+b$ is greater or less than $2a$, i.e., according as b is greater or less than a .

Thus, even though a candidate may have got the same marks both in the class and at the public examination, his moderated marks will not be equal to these but be either greater or less than them according as the Form-average is less or greater than the School-average in the public examination.

Whereas, if $x=y$, the other formula $\frac{bx+ay}{a+b}$ gives merely x , which is independent of the two averages. In this respect the second formula is superior to the first.

2. By properly adjusting a and x , it is possible to make $\frac{bx+ay}{2a}$ greater than the greater of the two quantities x and y and even greater than 100.

(i) Let $x>y$; then $\frac{bx+ay}{2a} > x > y$ when the ratio $\frac{y}{x}$ lies between 1 and $2 - \frac{b}{a}$ and vice versa, provided $a < b < 2a$.

In case $b > 2a$ or $b = 2a$, it is evident that $\frac{bx+ay}{2a} > x$.

(ii) Let $x < y$; then $\frac{bx+ay}{2a} > y > x$ when the ratio $\frac{y}{x}$ lies between 1 and $\frac{b}{a}$ and vice versa, provided $b > a$.

In these cases, the moderation formula is advantageous only to a particular class of boys the ratio of whose class marks to their marks in the public examination lies between certain defined limits. It is certainly unfair to make a candidate's fate depend on such accidental circumstances.

(iii) It is possible that $\frac{bx+ay}{2a} > 100$, if $b > a$ and $\frac{b}{a} > \frac{200-y}{x}$.

Illustration. (1) Let $x=30$, $y=20$, $a=15$, $b=40$.

$$\text{Then } \frac{bx+ay}{2a} = 50 > x.$$

(2) Let $x=28$, $y=30$, $a=20$, $b=40$

$$\text{Then } \frac{bx+ay}{2a} = 43 > y.$$

Thus a boy who fails both in the class examinations and the public examination can get high marks after moderation.

(3) Let $x=90$, $y=30$, $a=20$, $b=40$.

$$\text{Then } \frac{bx+ay}{2a} = 105 > 100.$$

The application of the second formula to the above cases yields respectively the results $27\frac{3}{11}$, $28\frac{2}{3}$, and 70, showing that the second formula avoids the anomalies of the first. In fact, whatever positive values x , y , a , b may have, it can be mathematically demonstrated that $\frac{bx+ay}{a+b}$ must always lie between x and y ; so the moderated marks can never exceed 100 but be always greater than the lesser and less than the greater of the two marks, *viz.*, the class marks and the public examination marks. If a boy fails both in his class marks and the public examination marks, he cannot pass even after moderation according to the second formula. The chief merit of the formula lies in this.

3. The discussion of the two preceding paragraphs makes it plain how advantageous it is to make $a < b$ or the Form-average sufficiently low so that it can never exceed the School-average at the public examination. We shall now show how there is scope for manipulation even in the second formula. For, it may be pointed out that $\frac{bx+ay}{a+b}$ or $x - (x-y) \frac{a}{a+b}$ can be made favourable to the boys by making $(x-y) \frac{a}{a+b}$ least possible, assuming of course $x > y$. (In the other cases where $y > x$ and y greater than the pass minimum, the candidate passes by virtue of his own public examination marks and no moderation is applied to him, as it may tend perhaps to fail him). To

make $(x-y) \frac{a}{a+b}$ the least possible, it is advisable to make the ratio $\frac{a}{b}$ as small as we can. This can be effected by making the Form-average as low as possible under the circumstances. Thus, even in the application of the second formula, the low average plays a prominent part in the manipulation.

To make the second formula work very favourably, a head-master may adopt the procedure of giving good boys low marks and bad boys high marks. I shall illustrate below how this may be done in practice, without giving room to the least suspicion of manipulation.

Illustration. (4) Strength of a class : 40 boys

(Say $A_1 A_2 \dots A_{40}$).

Class marks.	$A_1 A_2 \dots A_{10}$	(10 boys)	25%	each.
	$A_{11} A_{12} \dots A_{20}$	(10 boys)	20%	do.
	$A_{21} A_{22} \dots A_{40}$	(20 boys)	50%	do.

Form average. 36 $\frac{1}{4}$ %

Public examination marks.	$A_1 A_2 \dots A_{10}$	(10 boys)	60%	each.
	$A_{11} A_{12} \dots A_{20}$	(10 boys)	40%	Do.
	$A_{21} A_{22} \dots A_{40}$	(20 boys)	30%	Do.

School average 40%

Form average is very nearly equal to the School-average and so there may not be any suspicion about manipulation. The boys $A_1 A_2 \dots A_{20}$ will pass by virtue of their own marks, no moderation being applied to them (according to the proposed revised rules); while the boys A_{21} to A_{40} will also pass, for moderation gives them $40 \times 50 + 36 \frac{1}{4} \times 30 = 40 \frac{30}{61} = 70 \frac{1}{2}$

Thus all the pupils pass and the school produces excellent results!

4. Another anomaly.—Suppose $y=0$, i.e., a candidate gets zero marks in the public examination. If moderation be applied, he will get $\frac{bx}{2a}$ or $\frac{bx}{a+b}$ according as the first or the second formula is used. It is possible to make both of these expressions greater than the pass minimum by suitably adjusting x and a —marks which are in the hands of the school.

Thus a teacher can make any student he likes pass in the S.S.L.C. Examination by giving him very high class marks.

5. From the above discussion, it will be fairly obvious that all the mischief of the moderation formula is due to the ratio $a : b$ which occurs in it. It is therefore desirable to devise a formula not involving the ratio. I may venture to suggest the following formula $\frac{m(x+y) + a+b}{2m+2}$ where m is the co-efficient of correlation or association

of the individual marks and the group-marks, *i.e.*, the Form and the School Averages.

If we mean to give equal importance to the individual as well as to the group-marks we may put $m=1$ in the above formula and derive the formula

$$\frac{x+y+a+b}{4}$$

which is extremely simple both in respect of form and ease of application. It is obviously devoid of the mischievous element $a:b$.

Applied to illustrations 1-5 above, this formula yields at least equally reliable results, if not more reliable ones, as may be seen in the following table of moderated marks:—

Illustration No.	Moderated Marks		
	Formula $\frac{bx+ay}{2a}$	Formula $\frac{bx+ay}{a+b}$	Proposed Formula $\frac{x+y+a+b}{4}$
1	50	$27\frac{3}{11}$	$26\frac{1}{4}$
2	43	$28\frac{2}{3}$	$29\frac{1}{2}$
3	105	70	45
4	$42\frac{17}{29}$	$40\frac{30}{61}$	$39\frac{1}{16}$
5	48	$41\frac{1}{7}$	$35\frac{1}{2}$

It is needless to add that $\frac{m(x+y)+a+b}{2m+2}$ will always be less than

100, because x, y, a, b are all less than 100.

6. Since every formula must give some scope for manipulation as long as it involves some variables which are in the hands of the manipulator, it is advisable to keep the co-efficient 'm' confidential. If necessary, its value may be indeterminate, being fixed each year by comparing the performances of the candidates in the public examination and in their own school examinations.

The tendency for manipulation may also be checked effectively by prescribing that a candidate's moderated marks shall count for a pass only if they exceed by 5% either the Form-average or the School-average in the public examination, whichever is the greater.

One point more before closing the present discussion. Moderation

need not be applied to a candidate's marks in the public examination if they are discreditably low. A minimum such as 25% in English and 20% in the other subjects may be prescribed as the lowest minimum to deserve moderation, so that a candidate falling short of this minimum must fail and no moderation need go to his relief.

A. A. KRISHNASWAMI AYYANGAR.

REVEIWS.

Indian Philosophy. By Professor S. RADHAKRISHNAN. George Allen and Unwin Limited, London. 21s.

THOUGH several treatises of great merit have been written, from time to time, on sections or select topics of Indian Philosophy, by eminent scholars of the West, yet no detailed account of the entire field has been given till now by any of them, excepting the late Professor Max Muller, to whom undoubtedly belongs the credit of having made a first attempt in this direction. And it is now generally agreed that his *Six Systems* neither goes sufficiently deep into details, nor includes all the phases of Indian thought, not to say anything of its other similar defects. Nor has any Indian till recently ventured to present his critical estimate of the achievements of his countrymen in this field, comprehensively considered.

The last two years may, therefore, be said to mark the beginning of a new chapter in the modern history of Philosophical India. Three noteworthy publications, all by Indian authors, have been ushered, though only in part, into the world. One hails from the University of Cambridge. Dr. Das Gupta, Professor of Bengali, published the first volume of his *History of Indian Philosophy* about two years ago. Under the auspices of the Bombay University, Professors Ranade and Belvalkar brought out a part of their *History of Indian Philosophy*. The third contribution comes from the pen of Professor Radhakrishnan, of the premier Indian University of Calcutta. And his is a name still held in the highest esteem by the students and professors of the University of Mysore which was the scene of his intellectual labours before he proceeded to Calcutta. And this fact makes it a matter of special interest to this magazine, in reviewing the learned Professor's magnificent work: magnificent, because, it has won for Indian Philosophy a place in the hierarchy of speculative thought as recognised by the accredited thinkers of the modern world. It has been published as one of the famous series known as the 'Library of Philosophy.'

Though like the other two publications, only a part of the work has appeared, yet it is unlike them in its aim. It is no 'history' but an 'interpretation.' "Nowhere is the difficulty of getting reliable historical evidence so extreme as in the case of Indian thought. The problem of determining the exact dates of early Indian systems has furnished a field

for the wildest hypothesis, and bold romance. . . . His aim, has therefore, "been not so much to narrate Indian views as to explain them so as to bring them within the focus of Western traditions of thought." Himself possessing a thorough and extensive knowledge of Western Philosophy he has succeeded in presenting his subject to the critical mind of Europe and America in a most admirable manner, as is evident from the authoritative opinions which have already appeared in the press.

In the introduction he has rightly drawn special attention to some of the distinguishing features of the culture of India. "Throughout its life it has been living with one purpose. It has fought for truth and against error. . . . Its great love of truth has made it intellectually and spiritually the most tolerant, whatever its defects socially. "That is why" says he, "the heretic, the sceptic, the unbeliever, the rationalist and the free-thinker, the materialist and the hedonist all flourish on the soil of India." Another important characteristic is the 'synthetic' vision, which it aims at taking in Philosophy, Religion and Science.

Professor Radhakrishnan has, in our opinion, effectively shown how baseless are the commonplace charges of Pessimism, Dogmatism and Indifference to Ethics, levelled against Indian Philosophy. He, however, admits the charge of unprogressiveness, which he traces to India's political misfortunes, and not to any inherent defects of the Indian mind.

Though he adopts the results of Western Research in regard to chronology and literary estimates and values, he maintains throughout the work his independence and individuality as a philosophic thinker and writer. What is more, we have often heard it said not only by European but even Indian Professors of Philosophy in the Universities of the East, that there is no philosophy worth the name in Indian culture. No Psychology, no Epistemology, no Ethics, no Aesthetics; in short, no scientific study of those departments whose developments are generally comprehended under the term Philosophy in the West. Indian thought, they say, is all theology and mythology. And Professor Radhakrishnan has made a highly laudable attempt to refute such superficial views, though we wish very much he had gone farther and shown that though the East has a great deal to learn from the West, yet the Hindu is in advance of the civilised races of the West in certain matters philosophical.

We also wish that he had devoted some more space to the repudiation of the untenable theory so often put forward by warped minds. Whenever similar thoughts of value are found in the East and in the West, they jump to the conclusion that the East must have borrowed it from the West. We do not understand why it should have been

impossible for the human mind in quest of truth, to pass through similar stages or to arrive at similar conclusions in different parts of the world independently. And it passes our comprehension why it should be impossible for a Sankara or a Ramanuja, or a Haribhadra or a Nagar-guna, to have lighted upon metaphysical concepts similar to those of a Spinoza, a Liebniz, a Kant or a Hegel though they could not have pursued the identical lines of enquiry. Professor Radhakrishnan has been most judicious throughout the work in instituting comparisons of this kind. And he says that "there is no material evidence to prove any direct borrowings at any rate, by India, from the West."

In this first volume, he starts, as scholars usually do, with the hymns of the Vedas and traces the growth of the religious and of the philosophic consciousness of the Indian mind, through the Brahmanas and Upanishads to the materialism of the Lokayatas, the Pluralistic Realism of the Jainas and Ethical Idealism as well as the Psychological Realism and Nihilism of the Buddhists. He devotes a chapter or two to the Philosophy contained in the Epics of Ramayana, Mahabharata, especially, the Bhagavadgita. Then he considers some religious aspects of Buddhism. The next volume is expected to deal with the several Darsanas and the later developments of all the systems of Indian thought.

Professor Radhakrishnan does not always adopt the orthodox Indian view. He has his own stand-point and estimates. His Philosophy of the Upanishads contains not a few of such divergences. The attitude of the Upanishads, he says, is not favourable to the sacredness of the Vedas. Again, he holds that the Central Reality of the Upanishads is '*Satchit Ananda*.' He attempts a reconciliation of Ramanujistic and Sankarite interpretations of the Upanishads by saying that "to the logical mind, the whole is real and within it falls the diversity of the world. The concrete *ananda* is the *Pramanika Satta* or the real revealed to thought, and answers to the highest *Brahman* accepted by Ramanuja, the pure *Brahman* free from all predicates is the *Nirupadhika Satta* or the *Nirguna Brahman* of Sankara." Yet even according to Sankara it is the latter that shows itself as the former. But he does not seem to commit himself to any particular view, though when he says that *Ananda* is used as a synonym for final reality, he seems to incline towards Ramanuja. When he comes to the discussion of the part played by 'intellect' and 'intuition' in attaining reality, he says that by insisting on intuition (perhaps mystic experience) more than on thought, on 'Ananda' more than on 'Vignana,' the Upanishads seem to support the non-dualism referred to in the introduction. In *Ananda*, "man is more and deepest in reality." Again, "the Upanishads believe in God and

so believe in the world as well." "If we ignore differences, we reduce the absolute to a nonentity. Loyalty to the highest experience of man, religious and moral, philosophic and æsthetic, requires us to recognise the reality of the temporal as part of the eternal, of the finite as subsisting in the infinite . . . the Upanishads would not have seriously put forth doctrines about the relativity of the world if it was their view that the world was a mere illusion." By such arguments Professor Radhakrishnan supports his own interpretation of Maya as energy and refutes the view put forward by Dr. Deussen. But Deussen is an avowed follower of Sankara. And the Professor's leanings appear to be towards Ramanuja. However, though our object here is not to examine our author's position, yet we feel that he would have helped us to understand him better, had he made it clear to us what the two words 'real' and 'illusion' mean for him.

His discussion of the Ethics of the Upanishads and Karma, appear to us to be really valuable contributions. "The whole Philosophy of the Upanishads tends towards the softening of the divisions and the undermining of class hatred and antipathies. . . . The Upanishads insist on a life of spirit which combines both of Jnana and Karma." Moral activity is not an end in itself, it has to be taken over into the perfect life. . . . The moral struggle as preparing the way for it (the supreme) is not useless. But we ask: what place does Karma occupy in the world of Jnana? Is Virtue Knowledge?

Our author sums up his interesting arguments in regard to Karma in these words: "There is no doctrine so valuable in life and conduct as the Karma theory. Whatever happens to us in this life we have to submit in meek resignation, for it is the result of our past doings. Yet the future is in our power and we can work with hope and confidence. Karma inspires hope for the future and resignation to the past. It makes us feel that the things of the world, its fortunes and failures do not touch the dignity of the soul. Virtue alone is good, not rank or riches, not race or nationality. Nothing but goodness is good."

The Materialism of the Charvakas is said to be not without its redeeming features. It is a declaration of the spiritual independence of the individual and the rejection of the principle of authority. The removal of dogmatism, which it helped to effect was necessary to make room for the great constructive efforts of speculation. Its value lies in this, that it is the first answer to the question how far our unassisted reason helps us in the difficulties of Philosophy.

Turning next to Jaina Philosophy, the central features, *viz.*, its realistic classification of being, its theory of knowledge, its famous doctrines of *Syadvada* and *Saptabhangi* and its ascetic ethics, with its

great doctrine of *Ahimsa* are carefully weighed. Its characteristic salvation or *Moksha* which is an eternal upward flying of the soul is also there, receiving its due measure of attention. The pluralistic basis of Jaina logic and its fallacies naturally come in for much thoughtful criticism. "If Jainism stops with plurality which is at best a *relative* and partial truth . . . it throws overboard its own logic and exalts a relative truth into an absolute one." Again, "the distinction of subject and object is not a relation between two independent realities but a distinction made by knowledge itself within its own field. If Jaina logic does not recognise the need for this principle which includes within it the distinction of subject and object, it is because it takes a partial view for the whole truth." The Metaphysical scheme of the Jainas has affinities with Liebniz's Monadism and Bergson's Creative Evolutionism. But that it is the product of an immature philosophising, is evident from the fact that it is not clearly aware of the exact distinction between *Jiva* and *Atman* and *Ajiva* and matter. It adduces no proof of the ultimate plurality of souls. It is only by stopping short at a half way house that Jainism is able to set forth a pluralistic Realism.

Professor Radhakrishnan's philosophical interpretation appears to be at its best in his chapters on Buddhism. For it is this system that in its fundamental ideas and essential spirit approximates remarkably to the advanced scientific thought of the nineteenth century. The modern pessimistic philosophy of Schopenhauer and Hartmann is, he thinks, only a revised version of ancient Buddhism and as far as the dynamic conception of reality is concerned Buddhism is a splendid prophecy of the Creative Evolution of Bergson. Early Buddhism suggests the outline of a philosophy suited to the practical wants of the present day and it is helpful in reconciling the conflict between faith and science.

At a time when anarchy in thought was leading to anarchy in morals, Buddha wished to steer clear of profitless metaphysical discussions. Buddhism is essentially Psychology, Logic and Ethics and not Metaphysics. Whatever Metaphysics we have in it is not the original Dharma, but added to it (*Abhi Dhamma*). And the three marked characteristics of Buddhism are ethical earnestness, absence of theological Dogma, and aversion to metaphysical speculation. Buddha, like Lucretius, felt that the world would be better for the triumph of natural law over supernaturalism by announcing a religion which proclaimed that each man could gain salvation for himself without the mediation of priests or reference to Gods. Buddha wished to increase the respect for human nature and raise the tone of morality. If Ethics is made to rest on the shifting sands of Metaphysics or Theology it has an uncertain tenure. Buddha wished to build it on the rock of facts. Ancient

Buddhism resembles Positivism in its attempt to shift the centre from the worship of God to the service of man.

Buddha's pessimism is not a doctrine of despair. He asks man to revolt against evil, to conquer it and to attain an *Arhat* state.

All schools of Buddhism agree that there is nothing human or divine that is permanent. All things change. It is an artificial attitude that makes sections in the stream of change and calls them things. Identity of objects is an unreality. To account for the continuity of the world in the absence of a permanent substratum, Buddha announces his law of causation, which is *perhaps his chief contribution* to Indian thought. While the Upanishads say that things have no self-existence as such, but are products of a casual series which has no beginning or end, Buddha says that things are the products of conditions ; that there is no *being* : but only *changing*. We cannot say, as in Nyaya, that one thing is the cause of something else. For a thing is what it is and it cannot become something else. In the external world causation is uniform antecedence. After all the trouble of modern philosophy causation is not defined in more adequate terms. The aim of Buddhism is thus not philosophical explanation but scientific description.

The doctrine of impermanence held in common by the Upanishads and early Buddhism, is developed by later Buddhism into the view of momentariness. But to say, that things are *Anitya* or impermanent is different from saying that they are momentary or *Kshanika*. Buddha holds that only consciousness is momentary but not things. Our author after pointing out very clearly how all change involves a permanent entity that changes, and how the human intellect compels us to admit an unconditional being as the condition of the empirical series, winds up this section with the words "Buddha believed in anontological reality that endures beneath the shifting appearances of the visible world," a statement the truth of which he has taken great pains to prove, but which will come as a surprise to not a few.

The ethics of Buddhism is based on its Psychology. But Buddha did not recognise the reality of the Individual which is but an illusion. This Avidya or illusion of the sense of individuality ceases when, with the wearying of the will, action ceases. Action ceases when delight of the senses in objects ceases. This delight ceases by the recognition of the transiency of life. Upon this groundwork is reared the structure of Buddhist Ethics, which it may be noted in passing, avoids the extremes of self-indulgence and self-mortification. As there is no reference to grace in Buddhism, it is all a question of self-development. Though Buddha did not expect all men to become ascetics, yet he believed that the fulfilment of world's duties was not directly helpful to salvation.

It may be interesting to note here the Professor's view that Buddha does not oppose caste but adopts the Upanishad stand-point. The Brahmin is such not so much by birth as by character. All men have the power to become perfect. So members of all castes were freely admitted to the monastic order so that they might attain the highest. But this is not foreign to the Brahmanic theory, which also looked upon the highest status of the Sannyasin as above caste. The very prevalent notion that Buddhism and Jainism were reformatory movements and that more especially they represented the revolt against the tyranny of caste is quite erroneous. They were only a protest, says the author, against caste exclusiveness of the Brahmanical ascetics. Even birth in Brahmin family, Buddha allows to be a reward for merit. Caste as such and as existing outside their doors, was fully recognised by them. And Buddha did not interfere with the domestic rituals which continued to be performed according to Vedic rules.

The supreme importance of the Karma theory in Buddhist ethics is well-known. Buddhism, however, does not explain the mechanism by which the continuity of Karma is maintained between two lives separated by the phenomenon of death. There is no soul to migrate. It is not the dead man who comes to rebirth but another. All the same, the law of Karma, requires us to reject all notions of favouritism, caprice and arbitrariness. The Majesty of God and the prestige of Providence pale before this principle. Buddha in thus relying upon Karma only abolished religion of the popular type which rests largely on craven fear or worship of power, which is fit only for savages or children, and strengthened religion in the sense of trust in righteousness. *Dharma* is the warp and woof of all that lives and moves.

Max Muller says "Many of the doctrines of the Upanishads are no doubt pure Buddhism or rather, Buddhism is on many points the consistent carrying out of the principle laid down in the Upanishads." So close indeed is the relation between Vedanta and Buddhism that the latter may be deemed a return of Brahmanism to its own fundamental principles. Buddhism helped to democratise the philosophy of the Upanishads which was till then confined to a select few. And it must be specially noted here that Professor Radhakrishnan has with remarkable ability marshalled his arguments to prove that Buddha believed in an ultimate absolute existence, though he neither denied nor admitted its existence and that one of the greatest of his followers, Nagarguna, describes 'Sunyata' almost in the very language in which *Nirguna Brahman* of the Upanishads is indicated.

Under the somewhat misleading title, *Epic Philosophy*, the philosophy of the cults of Durga, Vishnu, Rudra and other Gods as described in

the Ramayana and Mahabharata is considered and the development of the Bhakti aspect of religion is treated. But the chapter on the Bhagavad-gita constitutes an elaborate enquiry which goes into details, many of which might well be treated under the Upanishads or under the Vedanta as a system. There is no reference here to the question why a battle-field was chosen to teach the most recondite doctrines of Philosophy. That the Gita attempts a synthesis is, however, ably pointed out.

The three paths of *Jnana*, *Bhakti* and *Karma* are expounded so as to indicate how they could lead to the goal of the Monistic Idealism which Professor Radhakrishnan has in view. The interpretations of Sankara, Ramanuja and others are examined. The Ethics often of this poem is discussed at length. But the great lesson to be learnt is said to be "while the Gita insists much on social duties, it recognises a supra social state. It believes in the infinite destiny of the individual apart from human society. The Sannyasin is above all rules caste and society. It is not an ascetic ideal that the Sannyasin adopts. He may be aloof from society, yet he has compassion for all. Mahadeva, the ideal ascetic, seated in the Hymalayan snows, readily drinks poison for the saving of humanity."

Next comes the subject of Buddhism after the death of Buddha. How the two schools of the Mahayana and Hinayana rose, how they were made to approximate to certain types of Hindu faith and how each of them gave birth to new speculations of various kinds, are described. At the end is stated the important reason for the disappearance of Buddhism from the land of its birth. India had a more popular religion, which satisfied her imagination. Mahayanism in the struggle for existence had to adapt itself to various strata of society and various tastes of men, the most superstitious and the most ignorant, so much so that it lost nearly the whole of its individuality. Mahayana was no better than Vaishnavism and Hinayana than Saivism, of old. Buddhism had nothing distinctive to teach. When the Brahmanical faith inculcated universal love and devotion to God and proclaimed Buddha to be an *avatar* of Vishnu, the death knell of Buddhism in India was sounded. The hand of the immeasurable past, with its congenial fancies and inherited beliefs again took hold of the country and Buddhism passed away, by becoming blended with Hinduism. It is an invention of the interested to say that fanatic priests fought Buddhism out of existence.

The history of Buddhism establishes the enormous difficulty of having a pure morality independent of spiritual sanctions. Thus far, one might agree with the author. But some will hesitate to subscribe to the observation that the "neglect of the mystical side of man's nature

(is) the cause of its (Buddhism's) failure." For, Buddhism also has developed a mysticism of a most advanced type.

In the last chapter of the book the four well-known schools of the Vaibhashikas, the Sautrantikas, the Yogacharas, and the Madhyamikas, their characteristic tenets and their logical and metaphysical defects in particular, are most lucidly stated. The author also points out that Vedantic critics of Buddhism have not done adequate justice to Buddha.

The greatest service that Professor Radhakrishnan has rendered in this work lies in his learned exposition of the work of Nagarguna, the Madhyamika Philosopher. His theory of knowledge, his view of Time and Space, his criticism of causal relation, above all his Metaphysic of Reality, are so acute so original and so modern that they look as though they were the views of a first rate thinker of the twentieth century. We fear we might be doing positive injustice if we attempted to summarise the views in a para or two. Such as are really interested in this subject cannot afford to ignore this brilliant thinker of ancient India, whom the Professor has introduced to the public here.

In this valuable work, Professor Radhakrishnan has undertaken a task of tremendous difficulties. To present a historical survey, to give short but accurate summaries of ancient authors, is one thing and to interpret the most recondite thoughts of centuries ago is another. Each has its own responsibilities. But the latter is the more arduous. For, of what use would any ancient thought be if it have no value, as judged by the men of our day? In trying to show, therefore, that there are in Indian Philosophy, thoughts of the highest value to the Philosopher of to-day, Professor Radhakrishnan has succeeded so well, that we are compelled to say that he has laid the Indian world under very deep obligation to him. It will be not only a book indispensable to every student of Indian Philosophy but invaluable as a source of suggestions for making further progress in this field. Further research may lead to a different interpretation. But the line of work he has pursued will ever remain an enduring incentive to those that follow.

As a work of philosophical interpretation and criticism, it must be considered an epoch making publication, and we trust it will be warmly welcomed wherever people love truth and eagerly seek for it, howsoever far they may yet be from that universal goal of human thought.

V. S. I.

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The Commentary of Father Montserrate on his Journey to the Court of Akbar. Translated from the Latin: By J. S. HOYLAND, Nagpur, and Annotated by Prof. S. N. BANERJEE, Patiala.

WE welcome this edition, available for the first time in English, of a historical document of the first importance bearing on the reign of Akbar. The Latin Text was carefully edited with marginal and other notes by Father Hosten in the memoirs of the Asiatic Society of Bengal (Vol. III).

Akbar's character with its mixture of ambition and cunning has now been laid bare. He was 'so close and self-contained with twists of words and deeds, so divergent one from the other, and at most times so contradictory, that even by much seeking one could not find a clue to his thoughts.' The Commentary throws light on different aspects of Akbar's character—his grim severity; his humour and ready wit; his kindness and munificence; his keen and critical insight; his broad-mindedness in religion; combined with credulity and superstition. It was absurd of the intolerant and uncompromising missionaries to think seriously of converting so keen and thoughtful a student of Comparative Religion as the Eclectic Akbar.

Father Montserrate's Journal is full of inaccuracies and his tone is throughout characterised by Anti-Islamite prejudice and even bitterness, but his very religious bigotry, as the editors point out, adds to the value of the witness he bears to the greatness and glory of the Mughal Civilisation of which he gives a rosy-tinted picture.

The simplicity of style of the translator stands in sharp contrast to the Latin style of the original, which is involved and obscure. The footnotes of the annotator are appropriate and accurate. In one or two places indeed we would have wished they were fuller, for instance in the description of Fatchpur Sikri where the editors might have added a few interesting details from Mr E. W. Smith's picturesque volumes. We hope to see these supplied, along with the corrections of errors, few as these are, in a second edition of the book which will surely be called for ere long.

S. V. V.

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Morley's Select Essays, Edited by H. G. RAWLINSON, Macmillan & Co., London. 3/6.

LORD Morley was sufficiently a master of English prose to justify an edition of some of his essays to serve as a text-book in educational institutions in India. The Introduction in the form of an appreciation of Lord Morley is brief and interesting. The notes are rigidly confined

to proper names, and are quite to the point, free from the usual prolixity which characterise the notes meant for the consumption of Indian students. The Essays selected are: Popular Culture, the Study of Literature, Aphorisms, the Death of Mr. Mill, Macaulay, Valedictory. The editor deserves special thanks for giving complete essays and not extracts or those unliterary paraphrases of classics which go under the name of simplified English! We trust Lord Morley will always be spared the insult of having his classic English paraphrased and simplified by money-hunting editors. As it is, we have no hesitation in recommending the edition under review as one eminently suited to be a text-book for university examinations.

A. R. W.

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Primitive Ordeal and Modern Law. By H. GOITEN. George Allen and Unwin, Ltd. 10/6 net.

In this book the author re-examines the nature and evolution of Law in the light of recent research in anthropology, classical archaeology and experimental psychology. He seeks to show that law is not the artificial contrivance of social convention, but has its roots deep in human nature, and its rules drawn up on the basis of reason and with a view to the common good. Primitive ordeal was a physical test fraught with danger and was the last resort for getting at the truth among the backward races. The Oath is but a simplified ordeal—an ordeal carried out by words—and the action at law in early Rome was a development of the ordeal by combat, by means of the Oath.

Mr. Goiten describes and explains the various forms of ordeal—by water, by fire, by combat, by weighment, by poison, and by the cavern. The Indian mind will not have much difficulty in accepting his view that, however irrational the proceedings may seem to our normal logical habits of mind, we must get behind the rational to the pre-rational for the real nature of the ordeal to be intelligible to us. He brings the evidence of anthropology to bear on his explanation of what fire, water and earth really signified to the peoples of antiquity. But he does not attempt any explanation of why fire was preferred to water for the ordeal and as an agency of death in the case of women.

Among primitive men the Vendetta was probably the most disastrous of social scourges. The instinct gave rise to a complex compounded of the ego-complex the sex-complex, and later the herd-complex. The prime function of this unclear complex—which our author names the Themis complex—is to secure the inhibition of the immediate response and to enable it to find substitute satisfaction in other outlets. The

ordeal was an elaborated form of social contrivance calculated to meet the needs of this striking psychological transformation. The principle of the *lex talionis* was one of the first ideational elements to attach itself to the nuclear complex. Next came the notions of compensation and restitution. The morality complex based on herd instinct is distinctly later than the Themis complex. It is clear, therefore, that the legal consciousness has a complexion tinged by older and more fundamental elements than the moral consciousness. After treating of the more important interactions of law, custom, and morality, the author deals with the topic of Rights, and closes with pertinent observations on International Law. "In staging a world-drama of international justice, the statesman will be providing an outlet for pent-up emotions along lines that will provide intellectual justice at the same time. He may well believe that the arbitrament of ordeal will be at least as satisfactory as the arbitrament of war."

The book is excellently got up. Only one slip has been noticed by us: 'the archaic system of the sun as a flat disc over which the sun travels' (p. 117). The author appears to have got his ideas of things Indian second-hand. Otherwise he may have hesitated to see a water-ordeal in Vedic literature, or minimised the emotional response evoked by the Ramayana as he does on p. 193.

S. V. V.

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Stories from Indian History. By EDMUND BULL. Blackie & Son.

THE stories deal with Pondicherry, Davacottah, Lally, Bussy and Baillie, and other topics and personalities in the Anglo-French War of the 18th century, and close with the story of the Vellore mutiny. Mr. Bull is familiar with the localities he describes and has taken the trouble to get his facts from the right records and sources. His stories therefore make interesting reading. There are two maps and seven illustrations.

S. V. V.

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Poems by Indian Women. Edited by MARGARET MACNICOL: Heritage of India Series.

A book of great interest, called "Poems by Indian Women," has lately been published in the "Heritage of India" Series, under the special direction of Dr. Farquhar. It is edited by Mrs. Margaret Macnicol, and is the work, we are told, of many authoresses and translators. With the exception of a few pieces written directly in English,

it contains translations; there being altogether one hundred and six selections, written by fifty-six women in fourteen languages, among which it is pleasant to come across well-known names, like Sarojini Naidu, and Toru Dutt. As the Introduction tells us, we are at the entrance of a new era in India, in which the women of India are bound to play a leading part. It will be interesting therefore, through the little book before us, to understand a little of the thoughts and ideals which filled their minds at different stages of the history of our land.

It is pleasant to see how great a part women played in the life even of ancient India, and how much share they had in the creation of literature.

We have one poem from Vedic India; it craves for material boons and renders thanksgiving for benefits received. From early Buddhist days, we are given nine selections from the work published by Mrs. Rhys Davids under the title of "Psalms of the Sisters." The note sounded in these is a desire for spiritual calm and a craving for release from the cramping bonds, not only of domestic life, but also of the transitoriness of earthly existence. Here is a little bit of passionate grief:

"Now here, now there, lightheaded, crazed with grief,
 Mourning my child, I wandered up and down,
 Naked, unheeding, streaming hair, unkempt,
 Lodged in scourings of the streets, and where
 The dead lay still, and by the chariot-roads—
 So three years long I fared, starving, athirst."

But release has come from sorrow and calm peace from unrest:

"And then at last I saw Him, as He went
 Within that blessed city Mithila:
 Great Famer of untamed hearts, yea Him,
 The very Buddha, Banisher of fear."

From the mediæval period of India, we get selections showing the growth of "Bhakti," or devotion to God. Some of them show quiet faith in the Divine Master, some are passionate outpourings of an almost personal love to Krishna. Here is a piece rich in imagery:

"With a rope of untwisted thread am I towing a boat upon the ocean.
 Where will my God hear? Will He carry even me over?
 Like water in goblets of unbaked clay do I slowly waste away.
 My soul is in a dizzy whirl. Fain would I reach my home."

Manu, the great law-giver, denied, we know, a definite share in religious life to Indian women; but how deep their religion reigned in their hearts, and how passionate was the longing for God's grace in their hearts, we can understand in some measure from the verses in the little book before us.

The selections of Modern India contain prose pieces as well as verse. We get a careful description of nature. Here is a bit for a description of the ocean:

"O thou ever changing, O restless, O ever distraught, stretching into a hundred arms, dashing and breaking, what seekest thou, unsatisfied? What wealth hast thou lost that thou dost search after, while thy untranquill breast rises and falls, breaks asunder and gathers together?"

The love-poetry is romantic, unselfish, passionate and idealised. Here is a pathetic bit from a Bengali poetess:

"Lest for lack of love this shamed soul fling away repentance, bring her, call and bring her. She has come to give herself up; bind her fast with loving arms; if she goes to day, what if she never comes again? Neglect is a poisoned arrow; with sorrowing pardon bring her, call and bring her."

The poem on the union of husband and wife shows us how spiritually strong the bond was:

"How can our words describe such a union? Drenched by the billows of joy and sorrow in the ocean of life, this bond of love emerges, rendered indissoluble for evermore. Ever on the hearts of husband and wife nectar is sprinkled; and by it the bond of joy and sorrow grows firmer, more divine, more lovely."

K. S.

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Studies in South Indian Jainism. By M. S. RAMASVAMI AYYANGAR, M.A., and B. SESHAGIRI RAO, M.A., Maharaja's College, Vizianagaram. Rs. 4.

THE 'Studies' are in two parts. In the first part the first of the joint authors puts together the available information regarding the history of the Jainas in the Tamil country, and in the second part the other author does the same work in regard to Andhra-Karnata Jainism. The authors are aware of the difficulties of the subject and present the reader with only tentative and provisional conclusions. It is to be hoped that Dravidian scholars will come to an early agreement as regards the age and activities of the Madura Sangam, and that Epigraphists will pay better attention to the cave inscriptions of South India. Progress in these directions is as important as the study of Jaina traditions embodied in numerous manuscripts for the unravelling of Jaina history in South India.

Mr. Ramasvami has some pertinent remarks on the age of the Sangam and points out serious difficulties in the way of accepting for it so early a date as the second century A.C. The trend of evidence is in

favour of placing the Sangam in the 5th and 6th centuries A.C., and the Paripāpal the 11th stanza of which has astronomical data referring to A. D. 634, would represent the latest stratum in Sangam literature. This view would also fulfil the tradition of the Sangam being wound up in the time of Kūna Pāndya Nedumāran, a contemporary of Sambandha and Narasimha Pallava in the first half of the 7th century. We are inclined therefore to accepting Mr. Ramasvami's date for the Sangam which he fixes from other data.

Mr. Seshagiri Rao discusses *inter alia* the Jaina Karnāta influences on Andhra and Telugu literature. He cites numerous references to show that Pampa's works suggested to Nannaya the diction of his panegyrical verses in the Mahābhāratam. He proves that there was a Karnāta type of literary culture prevalent in the Andhra and Kalinga countries. He believes it possible that there developed under Karnāta influence, certainly in the Andhra country and probably in the Kalinga, a type of Kavya diction which has left to this day a permanent influence on the growth of the Telugu literary dialect. His 'Epigraphia Jainica' is a useful compilation but, unhappily, not free from errors. Turning to page 40, for example, we find 'Sāyana-Mādhāva' spoken of as 'the real founder of Vijayanagar.' In the first place Sāyana and Mādhava were different persons, and in the second, neither of them was the real founder of Vijayanagar. Again, we are told of a Vira Devaraya IV in S. 1351! Mr. Seshagiri Rao has done good work in using place-names in the Telugu country to illustrate Jaina influence there.

S. V. V.

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"*The Cage of Gold.*" By SITA CHATTERJEE. Published by R. Chatterjee, 210.3.1, Cornwallis Street, Calcutta. Price Rs. 2-8-0.

"IN very early childhood, I brought you here, from where it will not be of much advantage for you to know. . . . So long I have done my utmost to bring you up according to my ideals."—These words are spoken to Urmila, the tender, plastic, reticent, though beautiful and accomplished heroine of this novel, by her guardian Kshetranath Babu, a solitary Bihari of immense wealth and expensive Western tastes, a confirmed eccentric, always lazy and ailing, and always in love with illness. Years back, Surasundari, the queen of his affections, spurned him aside, wilfully married "that murderer and dacoit," gave birth to Urmila, and died a miserable death. The generous-hearted Kshetranath has forgotten the injury, and has brought away young Urmila with the benevolent intention of training her up as his own daughter. Kshetranath is also an idealist by temperament. He believes that the mother's

great sorrows and the child's orphan uncertainty have all been the inevitable result of the mother having "had far too much opportunity given her of having her own way." He will, therefore, build up a system of vigilant supervision in order to ensure his ward's happiness. Thus, surrounded by comforts and luxuries, unaware of the outside world and unacquainted with any company save that of Miss Parker, her tutor, Urmila spends eighteen or nineteen years of mute and inert life in her "cage of gold." Then Kshetranath dies leaving a huge property to Urmila, but on condition that she marries Subodh or Lalit, his "deceased wife's nephews."

The cage is broken, and the simple bird whirled along to freedom and to the house of Samarendra, a College Professor in Calcutta. She spends there many months tending a cat and a tiny garden, engaging often in intellectual discussions with the learned professor, visiting people and attending tea parties, and getting knowledge of the vast world "where men laugh, cry love, and are torn again by hate and malice." The only event possible under the circumstances happens: a deep, chastening, speechless love takes possession of their hearts. But Mammon comes treading upon the heels of Cupid! Kshetranath's will is published, a nine day's wonder to the people in general and a raging fever to the persons concerned in the affair. Lalit and his mother, Giribala, are unwilling to let seventy-five thousand rupees slip out of their hands, and the money offered with a lovely girl too! So, like a dutiful mother, the stout, bustling and imperious Giribala endures much physical exertion in paying visits, is all courtesy and affection to Urmila, and succeeds in inducing the girl to change her residence from Samarendra's to her own. All the members of the household receive instructions and play their parts in the drama to the best of their ability. Urmila is treated continuously with respect and love; Lalit in particular showers attention and kindness with a lavish hand. But something is whispering in Urmila's ears that it is a "false deity."

Meanwhile, a light has gone out of Samarendra's house; he feels desolate, and works and works to keep away from melancholy. Naturally he falls ill; Urmila has no means of knowing his condition; for all tidings from that quarter are completely shut out by the assiduous care of Giribala. Samarendra recovers, but the sickness catches hold of his house-keeping aunt. Urmila casually hears the news; all her pent-up passion bursts out, and she rushes headlong to her true deity. Thus she finds true love though in a cottage.

This is the story, and quite an interesting one it is. With admirable solicitude has the author sketched the different stages of the love,—its birth, its gradual development, its troubles and impediments, and its

climax. But the plot seems lacking in adequacy of treatment. Many portions of the story are merely given in bare suggestion; we know very little about the parents of the heroine; would not fuller knowledge have added to the tender pathos of her situation? We would also have wished for a sufficiently elaborate picture of Urmila's early life and for a greater emphasis on the contrast between her "caged" and liberated life. We do not believe that it is incumbent on the novelist to observe any very severe restriction of materials; that rule governs rather the art of the playwright.

The author has introduced, quite justifiably, a large number of characters into the world of her creation. Giribala's family is a nicely differentiated and convincing group; we should like to have Ramasundari keep house for us; and Dipti stalks, a dreaded apparition before the orthodox Hindu community. But here again we notice the sad and unmistakable want of fulness: the characters portrayed are indeed numerous, but few of them possess the magnitude which they inherently crave for. Instead of standing out bold and plump, almost all of them produce their impression in a kind of misty atmosphere. Samarendra is after all a professor only in name: the possession of a bundle of old magazines and dogs'-eared books and the irremediable confusion and untidiness of one's chamber cannot create the sense of a living professor between them. It is true we are more concerned with Samarendra the lover; but if the author forgets that he belongs to a notoriously absent-minded individualistic class of human beings, she loses excellent opportunities. Furthermore, owing perhaps to an error of the sense of proportion, we are first introduced to Lalit, and being told that he raises "such a wave in the calm waters of her mind" we go off on a false scent, associating his name with Urmila's; but later we have to correct the mistake though with a good deal of surprise.

What most delights us, however, is the delicious humour we come across now and again in the novel. A few characters like Ananda Babu, Giribala and Kshetranath are conceived in a spirit of gentle raillery; and there are subtle, suggestive allusions in many speeches of the characters and in many descriptions of the author.

We must tell the readers that this is a translation from the vernacular into English made by Principal A. E. Brown, and the translation seems to be judicious, accurate and graceful, and leaves nothing to be desired.

S. V. R.

* * * * *

"La France et sa Civilisation de la Revolution a nos jours." By Rene Lanson et Jules Desseignet. Geo. Harrap and Co., 5s. net.

THE book under review is intended to facilitate the study of the French literary productions of the 19th century. The authors rightly hold that a historical comment is a necessary accompaniment of sound literary studies. Poets, dramatists and novelists of all ages having unavoidably been influenced by their surroundings, their writings must needs reflect to some extent the political, economic, scientific and religious life of the nation. Were we, for instance, to analyse the works of Lamartine and Victor Hugo, whose life was so closely connected with the political vicissitudes of France in the last century, it is obvious that no one can form a sound and upright judgment upon them who fails to understand the historical events mentioned in their writings.

The work of R. Lanson and J. Desseignet comprises two main divisions. The first Part is an abridgment of the history of France from 1789 to 1920. The second Part treats of the manners, customs and institutions of the nation in modern times.

It may be asked at once whether it was not too bold an attempt to condense such a vast subject in a tiny handbook of 280 pages. The authors have perhaps yielded too much to the preoccupation of briefly stating the chief events and embracing in a rapid glance the history of a whole century. They have thus been led to neglect the investigation and analysis of the true causes of the political changes which agitated France after the overthrow of "despotic Monarchy." In many a place they have contented themselves with dogmatic assertions and generalisations which can hardly stand the test of sound historical criticism.

The statement that "at the end of the 18th century nearly all French people were dissatisfied with their Government" is but one of these vague assertions with which we can hardly rest satisfied. The truth is that in the case under consideration the last thirty years have given quite a different version of the history of the French Revolution. The philosopher Taine drew attention to the affinity between the revolutionary and what he calls the classic spirit, that is, the spirit of abstraction which gave rise to Cartesianism and produced certain masterpieces of French Literature. Moreover he admirably demonstrated the mechanism of the local revolutionary committees and showed how a daring Jacobin minority was able to enforce its will as that of "the people." Following up this line of research M. Augustin Cochin has quite recently studied the mechanism of the "*societes de pensee*" in which the revolutionary doctrine was developed and in which were formed men quite prepared to put this doctrine into execution. The influence of Free-masonry on the French Revolution proclaimed by Louis Blanc and by

Freemasonry itself is proved by the researches of M. Cochin. Sorel has brought out the connection between the diplomacy of the Revolution and that of the old regime. His works prove that the Revolution did not mark a break in the continuity of the foreign policy of France. How far we are already from the somewhat bold statement that the Revolution of 1789 was brought about by the discontent of the French Nation taken as a whole !

We shall not accompany the authors through the study of the different Governments which followed one upon the other in comparatively close succession after the French Revolution. Our object is not to refute the book, but to warn a casual reader against any incorrect interpretation of the facts mentioned therein.

The second part of the work is a compilation of what has been published in recent years concerning the manners, customs and institutions of France. But here again we are sorry to notice that R. Lanson and J. Desseignet have fallen short of their task. The view they take of the political and religious events of the 19th century reveals them to be practical materialists, and as such they can hardly be expected to evolve with the impartiality befitting a historian the great problems concerning religion and morals in the last century and in modern times.

While thanking the authors for emphasizing once again the necessity of historical knowledge as an introduction to the study of literature, we regret we cannot recommend their book. To the students and reading public who are interested in French history and literature in the 19th century we would rather recommend such standard works as :

- A. Sorel.*—*L' Europe et la Révolution Française* ;
- Thiers.*—*Histoire du Consulat et de l' Empire* ;
- Vandal.*—*L' avènement de Bonaparte* ;
- Taine.*—*Les origines de la France contemporaine*.
- Mourret.*—*Histoire générale de l' Eglise* ;
- Honoroux.*—*Histoire de la France contemporaine*.

R. F.

* * * * *

An Introduction to Mathematical Analysis. By FRANK. L. GRIFFIN, PH.D.
Geo. Harrap & Co. 10/6 net.

THE division of mathematics into water-tight compartments with separate labels has been latterly considered by educationists to be too artificial. It is an obstacle in the way of the early realisation of the essential unity and harmony that exists between the several branches. It is further recognised that while mathematics is in the abstract a mental discipline, it is a powerful tool in the hands of students of the

natural and physical sciences. The book under review is an attempt at unification of the several branches of mathematics. It gives the student who has just finished the Secondary School course and entered the University, a bird's-eye-view of the vast field of Mathematics, freed from complicated technique and with simple applications. Care has been taken to make the concepts tangible by constant reference to concrete examples. It must be said, however, to the credit of the author, that accuracy has not been sacrificed by such treatment. "Critical analysis," according to him "is the essence of accurate thinking," and he insists, rightly, upon clear ideas and accurate definitions throughout.

The treatise covers the subjects usually included in a first course of algebra, trigonometry, analytical geometry and calculus, including probability and complex numbers. In the first four chapters are introduced the ideas of functions, limits, differentiation and integration. In the next three, trigonometric, logarithmic and exponential functions are treated as different kinds of functions. The study of motion and the equations of motion is next taken up, leading up naturally to the consideration of analytical geometry in chapter VIII. After dealing with the solution of equations in chapter IX, the consideration of the path of a moving particle is resumed in chapter X which includes trigonometrical analysis. The last four chapters are devoted to definite integrals, progressions and series, probability and complex numbers.

The departure from the usual order of treatment of mathematical topics and the easy nature of the examples may not perhaps readily appeal to the advanced student of Mathematics but the work will surely interest and help the general science student, who will be induced to take up advanced treatises when once his curiosity is roused.

The short historical notes given here and there in the body of the book are interesting and the tables given in the appendix are useful. The price of the book, however, seems a little too high.

V. G.

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THE MYSORE UNIVERSITY MAGAZINE

MARCH 1924

EDITORIAL

THE MAGAZINE.—In beginning a new volume of this magazine, we would congratulate Mr. Wadia upon his volume, that of 1923. Its scholarly, interesting and varied articles have been greatly appreciated. He was so strenuous and successful in gathering these that several remain for use in 1924. He succeeded immediately, too, in bringing the magazine up to time, and he kept it there. The University and all the readers of the magazine are very grateful to him—the more grateful because of the difficulties of the task. He showed how efficiently it could be performed.

* * * * *

PROFESSOR GOPALASWAMI.—In the name of the University, we welcome Dr. M. V. Gopalaswami, who entered upon his work as Professor of Logic and Psychology in the Maharaja's College in January. A son of the late Mr. M. Viswanatha Iyer, who was well known in Bangalore, Professor Gopalaswami graduated in the Madras University, where he studied philosophy under an admirable teacher, Professor N. Ramanujachari of Pachaiyappa's College. Proceeding to England, he was engaged in research work from 1920 to 1923, under Professor Spearman, Grote Professor of the Philosophy of Mind in London University, who is in charge of the Psychological Laboratory in University College, London. His work, which secured for him the London degree of Ph.D., won the most emphatic commendation of Professor Spearman, who considers him qualified in a peculiar degree to bring to India "the modern and extremely important developments of Psychological Science," and to establish in India such an organisation as may further the progress of this science. Dr. Gopalaswami has devoted himself particularly to study and research in educational psychology, including "intelligence tests." He has done original work in connection with the psycho-galvanic reflex as an indicator of intellectual effort; and apparatus designed by him was shown at the Scientific Novelties Exhibition held at King's College, London. In Mysore he intends to pursue his research work, and he is bent

upon the institution of a psychological laboratory here. It is intended that if, in accordance with the new S.S.L.C. scheme, vocational classes are opened in the schools, intelligence tests shall be utilised, under Professor Gopala-swami's guidance, in assigning boys to different courses—a matter in which the experience gained by him in the primary and secondary schools of London will be of very great help. Fortunately, Professor Gopala-swami is a "moderate" in these psychological matters, extremism in which is the most dangerous among modern educational tendencies.

* * * * *

THE PROPOSED S.S.L.C. AND INTERMEDIATE SCHEME.—At its special meeting in January the Senate passed, without essential modification, the scheme approved by the university re-organisation committee. There is a radical difference between this scheme and that proposed by the S.S.L.C. committee. Both schemes agree in condemning the complete specialisation at present in vogue, by which the history student and the science student enter on separate paths in the fourth form. But the S.S.L.C. committee seek to abolish school specialisation entirely, and merely to give an all-round education, which shall be the same for all. The University scheme, on the other hand, adopting "continuity" as its watchword, seeks to combine an all-round education with just so much specialisation as will suit different aptitudes and lead naturally to different careers. The distinction between the two schemes has reference to the position of "vocational studies," which are provided for by both. The S.S.L.C. committee's scheme requires every boy to take a vocational subject, but according to the University scheme a vocational subject is only for a boy destined for that vocation. The boy intended for higher studies must take, instead of a vocational subject, an additional literary or mathematical course. At the Senate meeting Dr. Chinnappa pointed out the necessity for clear ideas as to the purpose of a vocational course in school. Was it intended to lead to a vocation, or was it purely educative, a "training for hand and eye"? The two aims, as he said, cannot be combined, for both method and apparatus would be essentially different in the two cases. The confusion of thought thus referred to does appear in the S.S.L.C. committee's scheme, but not in that of the University. The former apparently represents a compromise between advocates of an all round training and those who want boys to be prepared for a vocation; and the resultant course might not be of much value to any one. But the University plan definitely considers these courses as a preparation for employment.

Thus it is presumed by the University scheme that at the fourth form stage it can be decided in the case of a given student (1) whether he is

the sort of person who should proceed eventually to higher studies, and (2) whether his bent is towards humanistic or scientific studies. So far as we can infer, there can be no change at a subsequent stage: a final choice must be made at the beginning of the fourth form year. We believe that there is some idea of assisting in this very critical choice by the use of "intelligence tests," and these no doubt will be extremely useful if it be always remembered that the item tested is a human being and not a machine, and that the finer kinds of intelligence defy mechanical or tabular tests.

It is intended by the University scheme that by the end of the S.S.L.C. course the vocational subject boy shall have learnt enough of his craft to make him useful in it if he must leave school then. To gain his S.S.L.C. certificate he will not require such high marks in English as will the boy who is to proceed to the next stage, that of the Intermediate College. It is considered that at present far too many boys pursue their studies beyond this stage: further study provides their only hope of a career, and yet they are not really fit for it and it is a waste of their time, besides which their presence is a great handicap to their fellow-students with intellectual gifts. It is desired that he who is by nature a craftsman should at this stage *become* a craftsman. It is assumed (a) that school training in the limited time available will be an adequate preparation for craftsmanship, and (b) that there will be a sufficiency of openings for such people.

Those who pursue their studies further will now enter the Intermediate College, which is not to be a part of the University but will be supervised by the University. Here there is a much wider separation of courses. Specialisation of certain kinds will produce the industrialist or the master-craftsman, while other courses will lead to the different University courses. In the Intermediate as in the S.S.L.C. examination there will be difference of minima in English. The vocational-subject student will not merely do less advanced work in this subject than the others, but even in what he does a lower mark will suffice for a pass. Further, the Arts man's pass mark in English will be higher than that of the Science man.

It must be admitted that there are dangers in such a differentiation of minima. It will always be the case that a very large proportion of our "S.S.L.C.'s" and our "Intermediates" will be employed by "private firms." The variability of the import of a given certificate will greatly puzzle such employers. Further, a very large number of them, when they do come to understand the system, will prefer (not without reason) the man who is better equipped in English to the man who is better equipped in industrial theory, for example. For the former is the better

educated man, besides the fact that he will be able to conduct communication in English more satisfactorily. It is important to remember that a satisfactory knowledge of English can never be acquired after a man has ceased his school and college studies, while business and technical knowledge *can* thus be acquired, and are most reliable when thus acquired, and many firms and organisations prefer to give their own training in their own special spheres of work, desiring only a *well-educated* man to begin with. We state these difficulties, but only in the hope that they may be overcome.* There are great advantages in the differentiation of minima.

The plan is advantageous (1) in providing certificates of all-round proficiency for people who have not the capacity to do much in English, (2) in raising the qualification, in English, for admission to the University. Here we see one of the principal objects of the scheme. The non-university type of man is to be kept out of the University. He is to be trained for suitable employment, and suitably certified, and such employment is to be made available for him. The opinion is gradually to be fostered in the State that it is not only university men that are fit for jobs; and the tradition to the contrary, which for so long has dominated educational policy in India, is to be ended. Correlatively, the men who are allowed to enter the University are to be men above the normal in intellectual capacity, and their powers are to be thoroughly tested before they are admitted. Thus the proposed differentiation of minima does not mean that for the Arts man the minimum in English will remain as it is, a poor 40 per cent, and that a lower minimum than this will be required of others. The Arts man's minimum (and, let us hope, that of the Science man) will be raised to a respectable level, appropriate to university studies. No doubt the minimum in subjects other than English will be raised also, for the weeding out process is meant to secure a higher intellectual level in all the university classes. The day of endless explanation of the elementary and the obvious will be over, and the genuine student will not have to wait for his slow though worthy brother, for whom the University is merely a place of unnatural and futile struggle. It is only by means of such exclusion that a university can become worthy of its name.

* * * * *

THE HOURS OF LABOUR.—Against the recommendations of three sub-committees (those for English, Mathematics and Science) the S.S.L.C.

*It was peculiarly unfortunate that at the time when this matter of examining in English was discussed in the Senate all the representatives of the English Department were absent, attending an examiners' meeting: it had scarcely been expected that the Senate meeting would go on for two full days, and the examiners' meeting could not be postponed.

committee have approved the present practice of holding Saturday morning classes in high schools. They did this with evident reluctance, finding themselves unable otherwise to provide enough periods for certain subjects. This Saturday morning arrangement is unfortunate equally for teachers and pupils. The sub-committees referred to emphasise the usefulness of the free Saturday morning for home study and writing by the latter and correction work by the former. Equally important in the pupil's case seems to be the respite from the strain of school-life. It is a great advantage to him to have two days at the week-end on which he need not go to school. Such a relief, indeed, might well compensate for the loss of a little instruction. And other south Indian boys and girls do not go to school on Saturdays. If the Madras schools can get their work done on the other days, why cannot those of Mysore? The trouble is that while Madras schools begin the day's work at ten o'clock, ours do not open till eleven. Is there no possibility of a change in this matter? It has to do, no doubt, with family arrangements; but do these differ essentially between Madras and Mysore? This same eleven o'clock principle operates disastrously in the University. There must be early closing in the afternoon to permit of games and other exercise, for experience proves that games are salutary only in the evenings. Therefore, college work has to be squashed tight into the central part of the day. Thus in the Maharaja's College there is a continuous time-table from 11 to 3, with a further hour from 3-30 to 4-30. On several days in the week a student must endure continuous lecturing from 11 to 3—a well-nigh intolerable ordeal, destroying much of the value of the lectures. The last hour from 2 to 3 is simply a grind for the student; nor does the professor enjoy lecturing to an audience who are obviously too tired to follow him. This scheme has this year been introduced even in the Maharani's College, and for a pathetic spectacle of combined weariness and determination commend us to the third year class in that college at half past two in the afternoon. Yet, given the 11 o'clock beginning, this is the only possible arrangement unless games are to be sacrificed. Can any possible reasons justify this stultification of university work? Is it not possible to adopt the Madras arrangement—10 to 1 and 2 to 4? It would have the additional considerable advantage of lengthening the evening by half an hour. Disadvantages also there might be. Many a student likes a system by which he need only come once a day to the college. Student and professor alike appreciate a long morning for the purposes of study. (For the professor indeed the present system is the most advantageous possible: he does not suffer, since he does not lecture for four hours continuously.) But no disadvantage in the Madras practice is comparable to the disadvantages in *our* practice—those of

bringing about daily exhaustion and of taking all the pith out of a number of the classes.

* * * *

“DICTATING NOTES.”—A certain very distinguished visitor to the Maharaja’s College put this sudden question to the assembled members of the staff—“And you don’t dictate notes, do you ?” Why did we not reply, in genial unison, “Why, yes, sir : most certainly we do !”? We know that every responsible professor does and must dictate notes, and that such dictation is not a shameless escape from labour but an excessively irksome duty ; but we instinctively joined to create a sort of atmosphere of denial, as though dictation were treachery to some high ideal. Whence has arisen the queer but widely current notion that in this matter Indian universities should differ from all others ? In countries where students can buy many books and libraries are lavish, notes are habitually dictated. In India, where for sheer information the student is dependent in a peculiar degree upon his professor, the latter must refuse to give it to him in the only form in which it can be retained !

In every university under the sun, a student’s harvest is contained in his note-book—his harvest, that is, so far as mere knowledge is concerned. In Oxford, for example, he starts from his rooms each morning with his note-books tucked under his arm, one book for each lecture, and he proceeds from college to college, as the course fixed by his tutor demands, garnering his store for the day. In many lecture-courses he takes down word for word what is said by his lecturer, and the lecturer deliberately adapts his pace to this process. He has some specific knowledge, and certain ideas, to communicate to the student, for the latter to remember and ponder and use ; and dictation is the only way in which to convey them in their entirety, without any loss, modification or misunderstanding. Not every lecturer, of course, at Oxford or elsewhere, adopts this plan, for in the case of some themes it is not necessary. And indeed it is unnecessary, and unfortunate, in some cases where it is adopted. An example was the “logic and psychology” class, some years ago, in a certain Scottish university. The logic was “formal logic,” a subject adequately dealt with in several text-books. One bought one of these text-books and consulted others, and the year-long series of dictated lectures simply added another text-book : the matter might, with much saving of time and energy, have been printed and sold to us. Probably there are many cases like this in the provincial universities of Britain, and the result is the most bitter complaints of the soullessness of instruction there, complaints which in general are not justified. It is a wasteful process to dictate what might equally well be printed : it costs the lecturer’s

salary and the student's time. In the act of dictation there is no personality, to give an impression beyond that of the printed word.

In what cases, then, does dictation seem justifiable? First, the matter must be such (in individuality of view or in the particular subject and aim of the course) as the student cannot obtain for himself with books, capacity, experience and time which are at his command. Second, the impression conveyed must be far beyond that which can be conveyed by mere dictation. Any lecturer or student knows what this means. There must be constant pauses in the dictation—pauses for illustration, for discussion, for suggesting wider issues, for constantly renewing living communication between the lecturer and his class.

In some circumstances, and in dealing with some subjects, the lecturer can proceed rapidly, leaving the student to take notes instead of writing down all that he says. Needless to say, this is the more desirable method when it involves no loss to the student. It is less frequently possible in India than in western countries. One reason is lack of books: poverty prevents purchase, and the numbers of the students are too large for libraries to suffice. Another reason is the fact that Indian students are not good at taking notes—not through any lack of intelligence but because they study strange subjects in a strange language, and also because they have had so little practice. In any circumstances, however, the taking of accurate and adequate notes is a difficult art and requires a certain antecedent knowledge of the subject dealt with. While it is good for students to be practised in note-taking, it is not right to sacrifice for this the necessary materials of study.

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DEBATING CLASSES.—One of our headmasters has made the suggestion, which seems to have found much favour, that a sort of debating class should be held in the schools, as part of the ordinary routine, and that every pupil should be constrained to take part in oral disputation. This was one of the best and most characteristic features of Greek and Roman education, and its absence from modern schemes is rather remarkable. The danger always was that "dialectic" should become "sophistic," that the process should exercise not the reasoning but the quibbling power, that the student should become adept less in confuting error and clarifying truth than in "making the worse appear the better reason." It is difficult enough (as presidents of Unions know!) to keep on logical lines even debates in which speaking is voluntary; and it will take a very good teacher to run a debate that is also a school class. The classes will vary infinitely in usefulness according to the teacher's fitness; but they will always provide excellent mental exercise for the boy. The

treatment of *opposing ideas*, the following of a line of thought with difficulties on the right hand and on the left, the withstanding of vigorous attacks—all these are forms of exercise of which our schoolboys, and indeed our students, get but little. Acceptance of tutorial wisdom has always proved a welcome line of non-resistance, and has been but too much encouraged by our system. The dread independence of a boy when he has to stand up and make his speech will be an excellent experience for him, and we earnestly hope that this scheme may materialise, in spite of the weight already borne by the time-table.

BRAHMA-LILA.

THE doctrine of *Brahma-lila* is a philosophical tenet peculiar to the *Badarayana Sutras*. Those who are unfamiliar with Eastern thought are somewhat surprised and very much shocked at a doctrine which reduces human activity to mere *lila* or sport of God. They cannot understand how our highest efforts could be so explained: they feel that our longings for the true and the good and the beautiful are among the most real things in the universe,—the things, in fact, which invest our hopes and efforts with a permanent value and which lift our soon-ceasing lives into the realm of the real. The most uncompromising monists in the West agree that “there is nothing more real than what comes in religion,” and “that the man who demands a reality more solid than that of the religious consciousness knows not what he seeks.” The pluralists are even more emphatic, for they unhesitatingly accept the data of our experience as the only outlet open to us to Reality, and consider that to dismiss such experience as unreal is to cut the ground from under one’s feet. The reality of human values is a fundamental assumption of the newfangled doctrine of Pragmatism and of the Intuitionist philosophy of Bergson. The Westerner who is bred up in traditions of this sort is naturally shocked at the idea that our human efforts and the environment in which those efforts are made possible are a result of the sportive freaks of God, whom his religion has taught him to think of in terms of love and grace. Is it conceivable that a God who is eternal love, and who by giving Himself is sustaining us and our efforts, seeks not what happens to us and our lives any more than a child cares for the doll which she casts aside and of which she is weary? Surely a doctrine of this kind is subversive of our highest hopes and deepest instincts.

Such a line of argument, so far as it goes, is sound; and the uncompromising monism of Sankara with which the doctrine of *lila* is connected gives verisimilitude to the contention. At this point it is necessary to trace briefly the steps in Sankara’s argument which culminates in the postulation of the unreality of the world. In the masterly introduction to the *Bhasya* Sankara writes: “It is a matter not requiring any proof that the object and subject whose respective spheres are the Ego and the Thou, and which are as much opposed to each other as darkness and light, cannot be identified. All the less can their attributes be identified.

Hence it follows that it is wrong to superimpose on the subject the object and its attributes and *vice versa*." Now what does Sankara mean by the "superimposition" of the object on the subject? He means that we frequently attribute to the self qualities which do not belong to it. For example, when a person is spoken of as stout or lean, deaf or blind, there is a clear confusion between the attributes of the self and those of the body, for surely it is not the self that is stout or lean or deaf or blind but the body in which the self is temporarily encased; and it is a clear case of *avidya* or ignorance that these respective qualities are confused. Thus, Sankara starts by making a radical distinction between the subject and the object, and one would expect a dualistic philosophy out of such a beginning; but curiously Sankara arrives at a monism, and we shall by and by explain how such a conclusion is deduced from premises so avowedly dualistic. It is, no doubt, easy to see that the self is not the body, because the self is a *chathanaswarupa*, a thinking entity, while the body is *achathanaswarupa*, a non-thinking entity. But it is somewhat difficult to follow Sankara when he argues that reality is in ultimate analysis *chathana* (thinking) and that the body which is *achathana* (non-thinking) is therefore unreal. An unthinking reality like matter has no place in the system of Sankara, for according to him the very sign-manual of reality is self-affirmation—the ability to affirm "I exist." Since matter is *achathana* it cannot affirm itself and has therefore no independent existence; in other words it exists on sufferance as a satellite of a higher reality than itself, *viz*, the *Atman*. The *Atman* is the reality and matter is a sort of phantom nucleus which surrounds it.

The further question naturally arises, "how came the *chathana Atman* to be crusted over with this phantom matter?" and it is in answer to this question that Sankara makes use of the Badarayana doctrine of *lila*. It must be frankly confessed that Sankara is hard put to it to answer the question and clutches at the idea of *lila* with the force of desperation. As is usual with people who have unwillingly led themselves into an intellectual blind alley, Sankara becomes prodigiously eloquent and floods the reader with a torrent of similes, metaphors, and what not. The *Atman* is compared to a juggler who is performing facetious tricks, but is himself unaffected by them; to a dreamer who has awful dreams which pass away as soon as he wakes from his sleep; to the child who amuses himself with toys which he casts away when he is tired of them; and so on. The ever-varying phantasmagoria of life and birth and death is the sportive outburst of the *Atman*, who dallies with matter just out of the fulness of his being and who himself is *Sat*, *Chit*, and *Anandam*. It is the dream of the dreamer which passeth away and is not; it is the sportive tricks of the juggler which affect him not; it is the *Brahma-lila*, which is cause of the world's evolutions and involutions.

Such in brief is the Sankarite conception of *Brahma-lila*; and so interpreted the doctrine is open to all the charges which religiously minded men and women level against it—the charges, namely, that it apotheosizes a being who inflicts on self-conscious individuals endless pain and evil for the gratification of his sportive moods, and that such a being is far from meriting the homage and love of the world. But really there is no need for such dismay. God is not an unfeeling monster who for the sake of his momentary pleasure inflicts endless pain on us. How, then, are we going to reconcile the doctrine of *lila* with our deepest hopes and highest instincts? Let us see how Ramanuja does it.

The philosophical system of Ramanuja is more accommodative and respectful of religious instincts. The God of Ramanuja is not the anæmic *Brahman* of Sankara, denuded of all human attributes and pitch-forked into a realm of abstraction; but a *Suguna-Brahman* full of auspicious attributes, responsive to human pain and joy, and ever ready to succour the devotee in need. He is the *Antaryamin*, the immanent Being who upholds the worlds and sustains our lives and yet the transcendent Being who is the Soul of all souls and the Architect of all architects. A conception of God such as the foregoing must needs concede the reality of the *Jeevathman*, the individual life, and the environment in which that life is made possible. It is not open to Ramanuja to say that the individual life with all its varied fears and hopes and efforts is an unreal phase of the One changeless reality, and that the world which is the amphitheatre of our lives is an improvised fiction of the individual souls; for Ramanuja makes God the condition of the soul's existence, and a doctrine which denies the latter must needs deny the former. Ramanuja has a suggestive simile or two in expounding his conception of the relation between God and the world. God is related to us and the world as the snake is related to its coils or the light to its brightness. You cannot think of the one without the other. A snake without its coils is inconceivable, and so is light without brightness. So is it with God. You cannot think of Him apart from the world and the individual souls who owe their being to Him but who nevertheless are necessary for His existence. You cannot put asunder the creator from his creatures, the father from his children; and God is both our Creator and our Father.

So far, Ramanuja has no need of a doctrine like that of *lila*; for he does not, like Sankara, dismiss the world as *maya* or the *lila* of *Brahman*, and does not therefore create for himself the dreadful *impasse* from which Sankara has such ado to save himself. Nevertheless, Ramanuja is not out of the rocks yet; indeed it looks as if his fair argosy were going to make shipwreck on a more fatal rock—more fatal because unseen and unexpected. He has postulated a *Brahman* who is all perfect; and he is

greatly exercised in mind to explain how a Being in whom there is not one tittle of imperfection could have created a world so full "of evils of all kinds—birth, old age, death, hell, and so on." Even supposing that these evils were not existent, he cannot understand what Brahman, "to whose essential nature it belongs that all his wishes are eternally fulfilled, could gain through the creation of the world." And Ramanuja's explanation is that the motive which prompts Brahman to the creation of the world is nothing else but sport or play. "We see," he writes in his *Bhasya*, "in ordinary life how some great king ruling this earth with its seven *dvipas*, and possessing perfect strength, valour and so on, has a game at ball or the like from no other motive than to amuse himself."

We do not know that this explanation carries us one bit further from the Monster-God. A being who inflicts all the evils of "birth, old age, death, hell" on self-conscious individuals just to amuse himself deserves no place in the universe. But such a God is the creature of a theory. Ramanuja's puzzle—"what is gained by a being to whose essential nature it belongs that all his wishes are eternally fulfilled, by the creation of the world?" is in point of fact a meaningless one. It is not true that God got up one fine morning and created the world by a wave of His magic wand: God is not God without the world, and the world is no world without God. God and the world are coeval, and it is foolish to ask, "why did God create the world?"

Ramanuja's use of the doctrine of *lila* is as inadequate and as open to objection as that of Sankara. Is there no way of retaining the doctrine without detriment to our primal religious instincts? We believe there is. What are the psychological elements involved in the idea of sport? The most important among them certainly is disinterestedness. The moment your labour becomes interested it is work, not sport. Through the present writer's study-window is seen a little urchin engaged in the momentous task of pouring mud between his fingers. He never seems to weary of the task; for he sits at it from morn till noon, and might go on longer but that hunger calls him away. Disinterestedness is a feature of activity of this sort. Another of the features which mark the sportive labour of children is the unaffected joy with which they throw themselves into it. They never weary of it, for it is a labour of joy and love. Their little hearts are in it and they know no ennui, no unrest. It is one of the sweetest sights in the world to watch the cradle of a child—to watch it kicking out its little feet and hands, bursting into ripples of laughter at no cause that you can see. Here is *lila*—the labour (if such a word is permissible) which is without fuss and pain, the labour which unites the will with the heart.

Now if you analyse the highest kind of activity, you will come at

some such features as we have already noticed in the sportive labour of children. Activity of the highest type is always disinterested. Take moral activity, if you will, and you will find that disinterestedness and purity of motive are the very heart of the moral life. Action such as is prompted by motives of individual gain or pleasure sinks at once from the level of the moral to the expedient and *pro tanto* becomes immoral. The beginning of morality consists in the complete surrender of pleasure or gain and the pursuit of a course of action the worth of which you divine and cannot resist. Another equally important feature of the moral life is that it demands not merely the labour of its votaries but their love. The moral life is essentially a life of disinterested love—a joyful surrender to the ideal for the ideal's sake. Thus the elements of disinterestedness and love which we remarked in the sportive labour of children are also features of the highest moral life. Nor are they less conspicuous in the creative activity of the poet or the painter. When Raphael painted his "Madonna" or Shakespeare wrote his "Hamlet" think you that the painter and the poet had their eyes upon personal gain and honour? The one painted the loveliest picture in the world and the other wrote the greatest of our dramas because—well, because they could not help it. The Spirit of Beauty in them *would* find expression, and they were the humble instruments of an impelling force that moves the sun and the stars and makes the whole world kin. "Hamlet" and "Madonna" are the *lila* of the dramatist and the painter; and this great universe of ours with its evolutions and involutions, its beauty and loveliness, its joys and its sorrows is the *lila* of the one Brahman.

B. V. NARAYANA REDDY.

THE INTUITIVE BASIS OF KNOWLEDGE

SET free from slavery to the church, science started on its career in the sixteenth century as an humble citizen of the republic of intellect. It gained in strength and volume by a ceaseless effort spread over a period of three centuries, until at last, in the nineteenth century, it attained supremacy over everything else. Researches in physics, chemistry, and biology revealed to the mass of men startling facts. Especially the doctrine of evolution came to the nineteenth century people as a second Book of Revelation. Science got such a strong hold on men's minds that philosophy and religion receded to the background. Religion was pushed aside as a meaningless myth, and metaphysics was put under a ban "as a barren region haunted by shadowy chimera."¹ Poetry was passed over as the pleasant prattle of childlike men. Science soon became even a substitute for religion and philosophy; assuming the *avatar* of positivism, it stood before all as the alpha and the omega of everything.

The idealistic reaction against science which began as far back as the days of Hegel appears in its most pronounced form in the writings of Jowett, Nettleship, T. H. Green, Edward Caird, F. H. Bradley and Bernard Bosanquet in England, of Bergson in France, of Eucken in Germany, of Gentile and Croce in Italy. Of late, this reaction has penetrated even into the sphere of science. The writings of Professors A. N. Whitehead and C. D. Broad bear ample testimony to this.

To deal with this reaction in all its details is beyond the scope of this essay. I shall here confine myself to one aspect of it. Science and philosophy alike overlooked the claims of immediate experience to be the basis of knowledge. In fact, the starting point of experience was considered to be something chaotic, and reality was sought in the medium of discursive knowledge acquired through the strenuous efforts of the intellect. In philosophy, no less than in science, our attention is now being drawn to the direct deliverances of intuition. I am concerned in the sequel to show how science and philosophy, neglecting the common forum of intuitive experience, had withdrawn themselves into dark caves of their own construction, and how they have now come to feel the erroneousness of their procedure.

¹ Leslie Stephen, *Science of Ethics*, p. 447.

(1)

The nineteenth century scientists and, following them, the philosophers started with the uncritical assumption that the starting point of their intellectual endeavour was the presentation continuum, a big mass of buzzing confusion, not without the glimmer of unity. Though this experience was regarded as indispensable for knowledge, it was not given a status in knowledge. Its place in knowledge was one not of autonomy but of servitude. It was believed to be so uncouth and ugly that it needed purification at the hands of the priestly intellect. Thus purified alone was it considered to be the fit abode for the human spirit. So that the whole intellectual endeavour of the nineteenth century was devoted towards weeding out the imperfections of our sensuous experience. The ruddy life of æsthetic experience was sicklied over with the pale cast of thought. Thus the nineteenth century spirit came to lose, more and more, the touch of life, its thrill and throb, and assumed, more and more, the form of cold and bloodless categories.

(2)

Though Hegel and his followers did much to show the abstractness of this mode of procedure, they could not succeed; for they were not themselves free from the fetters of positivism. To the extent that they held the concepts of science and of positivistic or empiricistic philosophy to be abstract and one-sided, they were no doubt anti-naturalistic. But they were as naturalistic as the naturalists so far as their views on sensation were concerned. The starting point of knowledge was to them, as to the naturalists, a chaos of images and ideas accidentally thrown together. Neither the scientist nor the philosopher maintained that there was no order or unity whatever in sense perception. In fact, the unity and system to which science attained was there, in sense perception, but only implicitly. What was implicit in sense perception science and philosophy rendered explicit. The difference between the two was one of degree, not of kind. The one was to the other as the perfect to the imperfect, as the true to the false. The true and the false were not different altogether; only the false was the less coherent and the true was the more coherent. The experience given to us in sense perception was imperfect, indistinct and incoherent, and this was rendered clear and coherent by science and philosophy. Though thus sense experience had no value in itself, it was yet considered necessary as a lower grade of experience preparing for a higher grade of experience. The world of sense perception thus came to be regarded as intrinsically erroneous, though it was absolutely indispensable in getting at a truer world. However indispensable, the sensuous world was something defective and one from which one would be

anxious to be liberated. Sense experience could never be a moment of the spirit's activity. It was, to use the language of Croce, an opposite and not a distinct; it was, at best, a negative element in reality, not a positive factor.¹

As against this, the Absolutists contend that sensuous experience is positive, not negative. They say that it is negative considered by itself and in abstraction; but in and through thought, it is positive. Sense experience as abstracted from thought is the opposite of thought; but as united with thought, from which it can never, as such, be separated, it is a positive moment in thought. Perception and conception are not opposites, but distinct and inseparable factors of knowledge. Perception without conception is blind, and conception without perception is empty.

The whole contention is legitimate so far as logic and knowledge are concerned. It is, no doubt, true that for logic there cannot be thought abstracted from intuition and intuition abstracted from thought. Real knowledge is thought-intuition. "Thought cannot think without intuitions, and intuitions do not intend anything unless they are thought. But the contention is quite irrelevant so far as the issues we have raised are concerned. Intuitions may not mean anything; but does it follow from this that to mean something is the sole possible value of intuitions? "The images which the poet uses will be without philosophy, but will not for this reason be anti-philosophical. Because, were that so, they would have to be partially philosophical, that is to say, to enter into strife with philosophy; but there is no such strife, and, therefore, those images although philosophically not true, are none the less not philosophically false. Yet they are theoretical acts, in the same way as philosophy is a theoretical act. The philosophical innocence of the poet does not change his intuitive knowledge into bad philosophical knowledge, into a negative of philosophy."² The question therefore is: May it not be that without being thought intuitions do possess value by themselves? Intuitions may not be true, but are they not beautiful? Is not beauty as much a positive value as truth?

An intuition may be beautiful without being true, but nothing can be true unless it be beautiful. While intuitions need not presuppose thoughts, thoughts always presuppose intuitions. "Presupposed in the logical activity . . . are representations or intuitions. If man had no representations, he would not think; were he not an imaginative spirit he would not be a logical spirit."³ Intuition is the most

1 Cf. Croce: "Logical knowledge has secured the lion's share. If it has spared and not devoured its weak companion (intuitive knowledge), it is only to allow it to hold the humble, grudgingly yielded post of handmaid or door keeper."

2 Croce, *Philosophy of the Practical*, p. 343.

3 Croce, *Logic*, p. 8.

primordial form of cognitive experience, and is presupposed by all other cognitive forms; and it has a distinct value of its own, independent of other cognitive forms.

Absolutism overlooks this. In its love of logic it does injustice to the claims of poetry. Absolutism erects the logical point of view into the philosophical point of view. It is thus that it is led to identify "Thought," "Reality," "Knowledge" and "Truth." It is thus that Absolutism opens itself to the charge of panlogism. It logicises reality. For it, "the rational is the real and the real is the rational." If reality and thought were commensurate, this simple conversion would be legitimate. But the question is, are they commensurate? A simple "yes" or "no" would do. But the Absolutists have always a long tale to tell. For, to say "Yes" is to lay themselves open to the charge of panlogism, and to say "no" is to undermine their idealism. The true lover of logic that the Absolutist boasts himself to be plays false to logic here. He stops short of his logic; for life prevails over logic. Life appears to him truer than logic; he therefore forsakes logic and follows life, follows instinct, follows common sense. What he thus believes on instinct he tries to base on logic. He therefore begins by explaining that his critics understand him to say that reality is simply thought, whereas he never meant to say that it was thought only. What is met with in sense-perception, he says, is included in what he calls reality. He maintains that reality is to be found neither in sense-perception only nor in thought only, but in their union, intellectual intuition.

We have already shown that this is no explanation at all, but only a repetition of his position. It is, in one word, irrelevant. To the criticism that Absolutism is panlogistic the answer given is that Absolutism does not take thought only but that it takes thought together with intuition. The answer still betrays the same mistake. Absolutism has answered the question, what is reality for thought? The real is the rational and the rational is the real. The rational is not merely the formally consistent, without the touch of the sensible. Reality is logical primarily, but it also includes the alogical. The question is not whether the logical includes the alogical also. The question is, is the alogical valuable by itself, or is it valuable only as included in the logical? The absolutist does not face the question fairly and squarely. He beats about and blows up a heap of dust. From what he says we can infer that the alogical is for him an abstraction and an error, and that it has reality only in and through the logical. The alogical has thus no autonomous place in Absolutism; it has no value by itself, but has value only when absorbed in thought. It is valuable not because it *appeals* to some one, but because it *means* something.

The denial to the beautiful of an autonomous position in the spirit's activity comes out very clearly when Hegel speaks of art as one opposite and religion as another opposite and philosophy as the synthesis of the two. It is but right that Absolutism is called panlogistic, whatever awkward attempt it may put forth to avoid being called so. It subordinates the alogical to the logical whereas in fact the alogical is not only the prius and presupposition of the logical but also its crown and completion. Logic rises from life and returns to it. For Absolutism "Reality" is "Thought," is "Truth," is one-dimensional. Beauty, utility and goodness are the spectra of "Truth." Unless Absolutism reorganises itself by recognising the autonomy of the alogical it cannot escape the charge of panlogism.

(3)

The poet has, from the beginning, been protesting against the scientists and philosophers treating the most primordial form of experience as something imperfect and uncouth. He has urged that his experience does not lay claim to truth or utility. But just because it is neither true nor useful, it is neither imperfect nor unreal. It is, in its own way, perfect and real; it is beautiful. It makes one forget oneself, and this forgetfulness characteristic of æsthetic experience is the prime condition of truth as well as utility and goodness. The poet has always regarded it as his heart and soul. And when what he hugs to his heart as a thing of beauty and joy for ever has been spoken of disparagingly, he has expressed his regret in verse as well as in prose.

The scientists and the philosophers have done something to console their favourite friend, who has brought them solace many a time. They have told him that poetry is something sweet, something sublime, something which they love as much as he does; and have declared that when they speak of the primordial form of experience as being crude or chaotic, they do not mean it of poetic experience but only of common experience. Poetry is as great as science and philosophy, if not greater. Philosophers like Kant and Schelling have gone to the length of placing poetry above philosophy. According to them, what philosophy fails to find poetry alone is able to find; it becomes to them the highest expression of truth and reality. The scientists have, in their turn, exalted poetry by finding a great many scientific truths in poetry.

But the poet has, in spite of this, felt that when scientists and philosophers speak of poetry, they do not mean the same as he feels. He has, therefore, considered both their censure and their appreciation beside the point. He has often said to himself, "They are speaking of something they know not." While the poet has been telling them, in

plain words, that his experience is of experiences the humblest and the most primordial, they have thought it to be rather a highly developed form of experience.

This unhappy quarrel between the scientists and philosophers and the poets has continued for many a generation. The scientists and philosophers have much too great a conceit of themselves to be able to feel as poets feel, and by that very condition they are precluded from understanding them. The precondition of all understanding is a certain sympathetic effort on the part of the person who wants to understand. To sympathise with an object is to set aside all sophistications of the intellect and put oneself into the *naivete* and simplicity of intuition, where eye speaks to eye, heart speaks to heart, and the being of the one thrills and throbs through the being of the other. Not that the scientists and philosophers are altogether alien from the poetic experience; for had they not been in some sense poets they would have been neither scientists nor philosophers. Only, they have not understood that they are poets first and for the most part of their life, and philosophers and scientists next, and that only now and then. Because they do not write verse, they think that they are not poets. To be poets is one thing, to write poetry is quite another. One may be a poet, even though he may never write poetry. It is possible for man to manage without writing poetry, but it is impossible for man to manage without being a poet. All men are poets though few write poetry.¹

To feel as a poet feels is to forget oneself in the object one is contemplating. This the scientist or the philosopher as scientist or philosopher is not accustomed to do. The scientist's business is to watch and work; the business of the philosopher is to keep his critical faculty awake in order to interpret and harmonise. Thus in keeping awake and watchful the scientists and philosophers have weakened the poetic capacity in them, the capacity to lose oneself in the object one is contemplating. The poets, on the other hand, have developed this capacity of self-forgetfulness so much that they are not in this sense watchful, with the result that they feel it difficult even to understand themselves as themselves. The question scarcely enters into their head, "What am I?" Even if it suggests itself they scarcely make an attempt to answer it. They may even say sometimes: "What does it matter what I am? I am I." When the poets refuse to explain to themselves what they are, how can one expect them to take the trouble of explaining what they are to others. This

¹ This idea has found the most classical expression in Shelley's *Defence of Poetry*. It is a pity that the views expressed there have found no favour among literary critics and philosophers.

sorry state of affairs was bound to continue till there appeared a poet who was also a philosopher or a philosopher who was also a poet.

(4)

One such we seem to find in Henri Bergson. He has done much to put the issues in a clearer light. But even he has not completely succeeded in settling the claims of intuition. He is more a poet than a philosopher. In vindicating the claims of intuition he has disparaged the claims of thought.

Bergson is the first great philosopher to champion the cause of intuition as against the pretensions of intellect. To state his position adequately is beyond the scope of this essay. Let me concern myself here to deal with his intuitionism, so far only as it bears closely on this discussion.

Bergson has pointed out to the scientists that their work is more practical than theoretical. The instrument which they have been using is the intellect, and this is profoundly suited to subserve action. "Postulate action," says Bergson, "and the very form of the intellect can be deduced."¹ "Our intelligence, as it leaves the hands of nature, has for its chief object the unorganised solid."² "The intellect is characterised by a natural inability to comprehend life."³ "Of the discontinuous alone does the intellect form a clear idea."⁴ "Of immobility alone does the intellect form a clear idea."⁵ When thus the intellect takes life out of things, it "has unlimited power of decomposing according to any law and of recomposing into any system."⁶ The intellect "bears within itself, in the form of a natural logic, a latent geometrism that is set free in the measure and proportion that the intellect enters into the inner nature of inert matter. Intelligence is in tune with this matter, and that is why the physics and metaphysics of inert matter are so near each other."⁷

He points out to the philosopher that as soon as he follows the scientist in his method his fate is sealed. "The philosopher has no longer any choice between a metaphysical dogmatism and a metaphysical scepticism, both of which rest, at bottom, on the same postulate, and neither of which adds anything to positive science."⁸ "To a metaphysical dogmatism, which has erected into an absolute the factitious unity of science, there succeeds a scepticism or a relativism that universalizes and extends to all the results of science the artificial character of some among them. So philosophy swings to and fro between the doctrine

¹ *Creative Evolution*, p. 162. ² *Ibid.*, p. 162. ³ *Ibid.*, p. 172. ⁴ *Ibid.*, p. 163.
⁵ *Ibid.*, p. 164. ⁶ *Ibid.*, p. 162. ⁷ *Ibid.*, p. 206. ⁸ *Ibid.*, p. 207.

that regards absolute reality as unknowable and that which, in the idea it gives us of this reality, says nothing more than science has said. For, having wished to prevent all conflict between science and philosophy, we have sacrificed philosophy without any appreciable gain to science.”¹

The duty of philosophy, according to Bergson, is “to intervene here actively, to examine the living without any reservation to practical utility, by freeing itself from forms and habits that are strictly intellectual.”² The work of philosophy is to dissolve the categories which science has built for subserving action into the whole from which it had drawn its materials. By so doing we get at the living and moving whole in the immediacy of our intuition. To know is to intuite. Thus understood, “knowledge ceases to be the product of the intellect and becomes, in a certain sense, part and parcel of reality.”³ For, to know a thing really is to know it as it is in itself, and to know it as it is in itself is to place oneself within it, to install oneself within it,—in short, to be one with it.

In thus calling the attention of the philosophers from the mediacy of intellect to the immediacy of intuition, Bergson has done a real service to philosophy, and indirectly to science also. He has demonstrated, once for all, the primordial nature of our knowledge by acquaintance as differentiated from the derivative nature of our knowledge by description. Truth lies only in knowledge by acquaintance and not in knowledge by description. For the one is truly theoretical, the other is truly practical; the one is true, the other is useful. Knowledge by description enables a person to get himself acquainted with an object, if he happens to come across it; but it can never, by itself, give him knowledge by acquaintance. It can only point out, like a sign-post, that there is *a so and so*: it can never reveal *the so and so*.

Description gives us an analysis of the concrete situation, whereas acquaintance gives us the concrete situation itself. All description involves acquaintance, but acquaintance need not presuppose description. Acquaintance is fundamental; description is derivative. Whereas we can derive description from acquaintance, we can never conjure up acquaintance by shuffling and re-shuffling the analysed factors constituting description. Analysis, which is involved in all description, is the work of the intellect; synthesis, which is involved in all acquaintance, is the work of intuition. Intuition gives us knowledge; description enables us to have a hold on our knowledge. The function of the one is theoretical; the function of the other is practical. The two are not opposed. On the other hand, they are allied. Instead of intuition being alien to intellect,

1 *Ibid.*, p. 208. 2 *Ibid.*, p. 206. 3 *Ibid.*, p. 161.

it is its very ground and foundation; instead of intellect being inimical to intuition, it is a power allied to intuition.¹

The secret of all acquaintance, of all intuition, lies in sympathy. It is only by sympathy that one gets to know another as he really is. This the poet possesses to a greater degree than any one else. In fact, it is by virtue of this sympathetic effort which the poet is capable of that he is what he is. Thus when Bergson appeals to intuition, to sympathy, he is doing nothing else than asking men to turn poets, if they would know the truth.

But Bergson has here made a mistake: he has reduced philosophy to poetry, truth to beauty. It is no doubt true that one cannot be a philosopher unless one be a poet. But to be a poet is not to be a philosopher. To intuite a thing is to find the beauty of it and not its truth. To "image" the beautiful, one has to forget oneself; but to know the true, one has to keep awake and judge. In order to enjoy the beauty of the sunset, you have to lose yourself in it; but to understand what it is, you have to awake from your æsthetic mood and think. To think is to philosophise; to philosophise is to find the universal in the unique. Real thought is not thought bared of representations, like the thought of the scientist; nor is thought pure representation, like that of the poet. Thought is thought when it thinks the universal in the individual, the concrete universal. To think truly is to think of the "this" and the "now" as the "ever-this" and the "ever-now.". In his attempts to free philosophy from the fetters of science, from the fetters of intellect, Bergson has made it the slave of intuition. In his anxiety to avoid the Scylla of intellectualism he has fallen a prey to the Charybdis of æstheticism. In his love of the æsthetic mood he has forgotten the logical mood; in following poetry he has forsaken philosophy.

The half truth of Bergson's intuitionism carries with it its own nemesis. His philosophy, which begins by vindicating the claim of intuition to be the basis of all knowledge, ends by making knowledge itself impossible. Intuition is æsthetic; he makes it philosophical. It is to this great blunder of Bergson that we have to trace the failure of his philosophy. Intuition reveals to him the *elan vital*, but what the *elan vital* is he has not thought out. He has made it eminently clear that reality is *elan vital*, but what it is, he has not explained. It is the business of poetry to

1 The terms "knowledge by acquaintance" and "knowledge by description" were first introduced into British philosophy by Mr. Bertrand Russell. I have used the terms to explain Bergson's views. I have sought as far as possible to keep close to their original meaning. Even if they should seem, in their present application, not to possess their original associations, they do not lose anything; on the other hand, they gain additional significance.

intuite and that of philosophy to explain. Bergson's philosophy is not an explanation, but an intuition. It is poetry, not philosophy.

(5)

Bergson has pointed out the important truth that in intuition we have the true basis of knowledge. But he has committed a great blunder; he has treated intuition as identical with knowledge. Thus what would have been an important truth has turned out to be a dangerous error. It was given to Benedetto Croce, the poet, philosopher and statesman of Italy, to reiterate the truth found by Bergson and to avoid the error he committed. He has vindicated the autonomy of intuition and of æsthetic experience, as against the Absolutists, and has, at the same time, made it clear that mere intuition is mute and blind without conception, as against Bergson.

The ruling conception of Croce's philosophy is that reality is spiritual and active. It manifests itself in two primary forms, the theoretical and the practical. These two further express themselves as æsthetic and logical and economic and ethical activity. These four forms of the spirit's activity are all autonomous; they are distincts but inseparables. The practical activity is distinct but inseparable from the theoretical. The ethical is distinct from the economic, as the logical is distinct from the æsthetic; but the ethical presupposes the economic and is inseparable from it, as the logical implies the æsthetic and is inseparable from it. This, in brief, is the scheme of the spirit's activity.

We are here concerned with one of the moments of the spiritual activity, the æsthetic. This is regarded by Croce as the most primordial form of spiritual activity. It is the basis and presupposition of all other forms of the spirit's activity. "To be the root, not the flower or fruit, is its especial function. Without root there can be neither flower nor fruit."¹ The æsthetic experience does not pretend to rank high; it is humble, and in its humility lies its greatness. As Croce puts it,—"In being thus simple, naked and poor lies the force of art. Force is given to it by its very weakness. Hence also its fascination."² The æsthetic activity is therefore to be regarded as the first grade of the spirit's activity. One has to intuite before one tries to understand. One must be a poet before one is a philosopher, scientist or statesman.

Mistakes which arise in philosophy, science and history are mostly due to bad intuitions, or lack of intuitions, in the philosopher, scientist and historian. Belief in the force of intellect and will makes them neglect the claims of intuition. They get so much sophisticated that they

¹ Quoted by Dr. Wilson Carr in *The Philosophy of Benedetto Croce*, p. 55.

² *Ibid.*, p. 56.

think they would belittle themselves if they should come down from the olympic heights of intellect to the humble sphere of intuition. They cling to philosophic or scientific conventions and do not take the trouble to go out of themselves and feel as the world feels. Convention keeps them off from the healthy sensuousness of intuition. It is given to the unsophisticated poet only to enter sympathetically into the heart of things. He alone can feel as others feel; else how could he portray a scene, or depict a situation, or create a character? How could he hold the mirror up to nature if he did not get lost in nature and become identical with it? It is by intuiting that the poet comes into intimate contact with the living and palpitating reality. Whoever wants to understand this living and palpitating reality, or desires to get mastery over this, must first intuit this. A bad poet is a bad philosopher, a bad man and a failure in life. History bears ample testimony to the fact that the greatest of thinkers, mystics, soldiers and statesmen are highly poetic souls. It is bad men of letters and bad men of action, neglecting to develop the poetic soul in them, that think they can make good this deficiency by a greater indulgence in their own conceit.

(6)

What is at the root of the many misconceptions of scientists and philosophers, as regards the most primary form of experience, is the materialistic theory of sensation. The fatal consequences that follow upon this theory it is impossible to exaggerate. The dualism with which modern philosophy began in Descartes and the unsuccessfulness of the many attempts to cure this dualism are due to that deep-seated error, the theory of sensation.¹ It is so ubiquitous that it has pervaded idealisms and realisms, monisms, pluralisms and dualisms, spiritualisms and materialisms alike. It has gained such universal acceptance that to oppose it is to excite the collective anger of mankind. Croce is one of those who have fought strenuously against this world-wide error, and credit is due to him for having dealt a death-blow to the materialistic theory of sensation.

This theory explains that sensation arises out of the impact of an object without and a mind within. In other words, sensation is the result of the interaction of body and mind. Croce points out that this sensation is an abstraction, a ghostly creation of the psychologist. The psychologist speaks of sensation as the most primordial form of experience, yet this, he explains, is itself due to the interaction of body and mind, concepts due to very complex mental processes. Sensation, thus understood, is a myth, and the psychologist props it up on other myths, mind and body, to give it an air of reality. The philosopher and the scientist, ensnared

¹ See James Ward's *Psychological Principles*, pp. 103-4.

by this superstition of the psychologist, have let go the central fact of experience and have taken their stand on abstractions which lie beyond experience and condition experience. From one abstraction they produce another and yet another, and thus create a whole world of abstraction and call it the *rerum natura*. They have begun by abstracting in order to obtain a hold on experience, and have ended in losing hold on it altogether. They have begun by building a cage to confine the bird of experience, and have ended by catching the cage and letting go the bird.

Lo! the bird is on the wing. The hunter has learnt to his surprise that not the cage but the bird is what he is after. Not sensation but intuition is our starting point.¹ Sensation is an abstraction from intuition; intuition is the source of what psychologists call sensation. The scientist and the psychologist really start with intuition, and in the course of their analysis they arrive at concepts like mind, matter, sensation, idea. These concepts, which are arrived at later in thought, are considered to be the presuppositions of thought and experience. What has come later in thought has been placed before thought. The concepts mind, matter, etc., are practical creations of the intellect, devised to take hold of experience, but they have been considered to be realities that condition experience. There is matter out there, and there is mind in here, and sensation is their product. It has qualities of both; it derives intensity from mind and extensity from matter. It is a strange irony of fate that science, which began by revolting against the anthropomorphic tendency of religion, has itself recourse to anthropomorphism. Science and philosophy are beginning to see this and awake from their anthropomorphic slumber, and Croce has done not a little to awaken them. He has dried up the springs of much fruitless discussion arising from the problem of the relation between body and mind. He has pointed out that body and mind are abstractions, and that sensation, their son, is a greater abstraction. Not mind or body or sensation is what we start with; the starting point of our intellectual endeavour is intuition. The business of physics and psychology, of science and philosophy, is no longer to find the cause of sensation, but to intuite first and to think and act next. To get to know the cause of experience, or, in other words, to seek the explanation of experience outside experience is to seek to find something, we know not what, as the explanation of what we see and think. It is like the attempt

1 In contemporary philosophy, especially in writings such as those of S. Alexander, William James and the critical and American realists, the word *sensation* has come to possess a new meaning and bears a close resemblance to *intuition*. Inasmuch as this meaning of the word is not widely known, it is better to keep the two words, *intuition* and *sensation*, apart and understand the word *sensation* in its old sense.

to explain how the earth is supported by bringing in an imaginary tortoise. Experience is all that is available for us; and we have to explain experience, and try to maintain a hold on it, not by going beyond experience and trying to stand where there is nothing to stand upon, but by plunging ourselves into experience and seeing it from within. The basis of all experience is intuition, and it is the business of science to analyse and of philosophy to think our intuitions.

(7)

It is a happy sign of the times that not philosophers only but also scientists have begun to recognise that they should keep closer to the direct deliverances of intuition, and that the speculative concepts which they have employed so far should be abandoned and new ones devised in order to get a mastery over the reality revealed to them in intuition.

Einstein was the first to bring this home to the scientists. He saw that the older physicists had let go the reality met with in sense perception, and had built the whole superstructure of physics on a metaphysical basis. The metaphysical fictions, space, time and matter, were believed to be facts out there, and mathematics and physics were concerned with studying the properties of matter, space and time. Einstein tried to find these in experience, but he could find them nowhere in experience. These he came to see were abstractions of the intellect and not the realities that they were considered to be. Nature presented herself to him in intuition rather differently from what the scientists had described. As Prof. A. N. Whitehead observes,—“The ultimate fact embracing all nature is (in the traditional point of view) a distribution of material throughout all space at a durationless instant of time, and another such ultimate fact will be another distribution of the same material at another durationless instant of time.”¹ Einstein found that on this assumption there was no room for velocity, acceleration, momentum and kinetic energy.² He was thus compelled to abandon the older physics and establish a new physics on the basis of what he found in intuition.

A glance at the history of these concepts will enable us to see the point clearly. The concept of matter which traditional science has been using is an inheritance from Greek philosophy.³ The influence of Greek philosophy on science “has resulted in one long misconception of the metaphysical status of natural entities. The entity has been separated from the factor which is the terminus of sense-awareness. It has become

¹ *Principles of Natural Knowledge*, p. 2.

² *Ibid.*, p. 2.

³ See, for an explanation of this, A. N. Whitehead’s *Principles of Natural Knowledge*, pp. 16-25 and Bergson’s *Creative Evolution*, pp. 347-64.

the substratum for that factor, and the factor has been degraded into an attribute of the entity. In this way a distinction has been imported into nature which is in truth no distinction at all. A natural entity is merely a factor of fact considered in itself. Its disconnection from the complex fact is a mere abstraction. It is not the substratum of the factor, but the very factor itself as based in thought. *Thus what is a mere procedure of mind in the translation of sense-awareness into discursive knowledge has been transmuted into a fundamental character of nature.* In this way matter has emerged as being the metaphysical substratum of its physical properties, and the course of nature is interpreted as the history of matter.”¹

This concept of matter is at the bottom of the problem of mind and matter. In fact, the Cartesian dualism is primarily due to the philosopher uncritically taking over the assumptions of modern physics wholesale into philosophy. If matter is the substratum of the colours we see, the hardness we feel and the sweetness we taste, the question naturally arises, what is the relation between what we sense and what causes this sensation? What we see is a colour: how is this colour that we see caused? Can we get acquainted with this cause as it is in itself, or is it only by inference that we understand that there is a cause? These and similar questions have engaged the modern philosophers and physicists alike. The answers to these questions are, in philosophy, our theories of interaction and parallelism, the theory of primary and secondary qualities, the doctrine of substance and attributes; and, in physics, the theories of ether, the molecular hypothesis and the theory of electrons. The concept of matter has thus been the cause of much muddle in modern science and philosophy.

Contemporary science and philosophy have unanimously come to the conclusion that the matter of the older science is a chimera. Einstein and other modern physicists have given up this metaphysical myth, born of Greek philosophy and nurtured on the milk of scientific superstition, and have turned to intuition as their sure guide. Hence they have resolved: “In considering knowledge we should wipe out all spatial metaphors such as ‘within the mind’ and ‘without the mind.’ Knowledge is ultimate. There can be no explanation of the ‘why’ of knowledge; we can only describe the ‘what’ of knowledge. Namely, we can analyse the content and its internal relations, but we can never explain why there is knowledge. Thus causal nature is a metaphysical chimera, though there is need of a metaphysics whose scope transcends the limitations to nature. The object of such a metaphysical science is not to explain

1 A. N. Whitehead's *Concept of Nature*, p. 16. Italics mine. Note how strikingly Bergsonian or Crocean is the language of the scientist.

knowledge, but to exhibit the utmost completeness of our concept of nature."¹

Not only the concept of matter but also the concepts of space and time which the older mathematicians and scientists believed in have been found to be inadequate to describe experience. In fact, the vicious things underlying the matter of the orthodox physicist are the conceptions of absolute space (timeless, void of activity and Euclidean) and of absolute time (flowing equally in measurable lapses). It is beyond the scope of this essay to bring out adequately the innumerable contradictions which these space and time conceptions involve. Enough to say that on this view of space and time we are bound to accept the paradoxes of Zeno, that the flying arrow is at rest and that Achilles can never overtake the tortoise. The contradictions which arise out of the traditional concepts of space and time have been pointed out by a great many philosophers ever since the days of Zeno, but not one of them could propose more constructive and less destructive views as to space and time. The physicists and mathematicians have continued to manage with the same concepts, though their inadequacy was pointed out. For to abandon them and find better ones was to revolutionise physics and mathematics. The scientists were not prepared for such a revolution and they tried to put off the day of judgment.

The day of judgment has at last come; Euclidean space and Newtonian matter have both been found to be inadequate, and the foundation of a non-Euclidean geometry and a non-Newtonian physics are being laid. We have no longer the absolute space and the absolute time of old, and matter is no longer suspended in these two voids, the "moveless" and the moving. We have space and time relative to each other, a four dimensional space-time continuum. Physics is concerned with this spatio-temporal continuum, this "mighty moving," this *elan vital*, that we get at in our intuition, and it is the function of physics to determine the internal relations obtaining between the analysed factors within it. To use the language of science, the business of physics is to determine the relations between the different axes of reference within this vast continuum.

Thus the idealistic reaction against science which began first in philosophy has invaded science itself and set up science against science. In contemporary physics, no less than in philosophy, there is a strong urge towards intuition and a general warning to beware of the sophistications of intellect. The basis of every form of knowledge is shown to lie in intuition. This is our common patrimony, the common capital without

which we cannot carry on the varied business of life. The cry, from every quarter, has been: "Intuition is our trust; let us guard it and be faithful to it." One is glad to note that the educationists have realised this fact, and have been framing measures to develop the æsthetic faculty. The æsthetic faculty is the very core of the mind; it is only on the basis of a developed intuitive faculty that the other faculties, the scientific and the philosophical, the technical and the moral, can thrive. The secret of personality lies in intuition. Education, which aims at developing the genius of every person, must have as its first principle the training of the intuitive power of the mind.

G. HANUMANTHA RAO.

DANTE'S DIVINE COMEDY (II).

WE left Virgil and Dante standing outside the gate of the City of Dis waiting for divine aid. Looking backwards across the gloomy marsh of Styx, Dante saw more than a thousand ruined spirits fleeing, like frogs that scatter through the water before their enemy the serpent, at the approach of the heavenly messenger. "Ah! how full he seemed to me of indignation. He reached the gate and with a wand opened it." Then the poets entered it without resistance, for the demons and furies had fled. Within, all round beside the wall, was one vast cemetery of fiery red-hot tombs with their covers raised wherein were the infidels and heretics moaning grievously. These are they who in their besotted folly—their "bestialitade"—either denied God or misconceived Him. As the poets passed along close to the wall they saw the tombs of the Epicureans—those who conceived erroneously that the *highest good*, namely absence of pain, is realisable on earth whereas the Catholic Church taught that life on earth is but sorrow and tribulation and true happiness is to be found only in the life beyond. In this part was Frederic II, King of Sicily and Naples and Emperor in 1212 A.D., of whom it was said "that he was addicted to all sensual delights and led an Epicurean life taking no account of any other." From this Epicurean tomb Dante was accosted by a fellow countryman, the noble Florentine Farinata degli Uberti leader of the Ghibellines and victor at Montaperti in 1260, who successfully withstood his party's desire to rase to the ground their native city, Dante is supreme among poets for his power of visualisation. Here is an example of how by a slight touch of description, by a single gesture, he makes his portraits stand clear for ever. Thus does he describe Farinata, towering from his burning tomb. "Already I had fixed my look on him; and he rose upright with breast and countenance, as if he entertained great scorn of hell." With him, he tells Dante, was a certain cardinal, who in his lifetime had been an ardent Ghibelline. Popular opinion easily associated the Ghibellines—the anti-papal faction—with heresy but Dante is more impartial, for out of the same tomb rises the Guelf Cavalcante Cavalcanti, the father of Dante's friend Guido, a poet of renown, to ask news of his son. Farinata predicts Dante's exile and explains how those in hell are allowed a prophetic vision until such time as the door of the future shall be closed. Of the present they have no knowledge, "except what others bring us, we know nothing of your human state."

Virgil and Dante cross this Sixth Circle until they reach the rocky precipice. They are obliged to take shelter from the noisome stench uprising. This they do behind a large monument—the inscribed tomb of a heretical pope—Anastasius II. Historically Dante is in error, confusing the Pope with a contemporary Emperor Anastasius. Here Virgil explains to Dante the moral scheme of Hell as already described to you. They resume their way down to the Seventh Circle in a wild chasm of shattered rocks. The furious Minotaur, infamy of Crete, besets their path—emblem of violence and bestiality. As Professor Gardner points out—within the Devils' city fiends appear as torturers, but in this Seventh Circle where violence is punished, they take bestial forms or forms which are half-bestial and half-human. There are three Rounds in this Circle; in the first, the river of blood Phlegethon, the violent against others, murderers and tyrants of history and legend, are immersed to varying depths according to the degree of their guilt and are kept down by the sharp arrows of troops of Centaurs—half-horse, half-man—ranging the banks. Virgil's disdainful words made the Minotaur plunge hither and thither in blind fury enabling Dante to dash past him. The Centaurs guide them to the ford and the famous Centaur Nessus carried Dante across on his back while Virgil cleft the air. They found themselves in the Second Round—the Dolorous Wood—trees whose trunks were all knotty, gnarled and twisted, with dusky leaves and poisonous thorns. In this pathless wood, the Harpies built their nests, fabulous creatures written of by Virgil. “Wide wings they have and necks and faces human, feet with claws, and their large belly feathered; they make rueful cries on the strange trees.”¹ “Wailings I heard on every side and saw no one to make them.” Dante was perplexed but Virgil told him to pluck some leaves and then he would discover whence the wailings came.

He did so and learnt that into these uncouth trees those *violent against themselves*, the suicides, had been converted. Every leaf plucked caused them agony. The Harpies thus caused them unending torment: in Virgil's story they foreboded disaster to the Trojans and here they forebode eternal misery and despair. “As a green brand, that is burning at one end, at the other drops and hisses with the wind that is escaping, so from that broken splint, words and blood came forth together.”² Then Dante learnt that the tree whose twig he had broken off was Pier delle Vigne, minister of the Emperor Frederic II and Chancellor of the Two Sicilies, a trusted counsellor who for some uncertain reason fell into disgrace, was blinded and imprisoned and eventually committed suicide—a besottedly

¹ Inferno XIII 13-16.

² Inferno XIII 40.

foolish action because, properly speaking, a man cannot hate himself. Therefore, at the Resurrection on the Last Day, suicides alone shall not reclothe themselves with their material bodies but hang them on their branches—"for it is not just that a man have what he takes from himself."¹ Ever and anon through this wood go crashing naked spirits in mad haste hunted by black hell dogs and when caught they are torn to pieces. These are they who wantonly destroyed their own substance by squandering. Across the wood Virgil then leads the way to the edge of the Third Round or Ring of the Seventh Circle. It is a naked plain of burning sand—over which, "falling slowly, rained dilated flakes of fire, like those of snow in Alps without a wind." Many herds of naked souls were all lamenting miserably—"some were lying supine upon the ground; some sitting all crouched up; and others roaming incessantly."² "Ever restless was the dance of miserable hands, now here, now there, shaking off the fresh burning."³ Those lying supine were the blasphemers, the violent against God—against Him who is a Consuming Fire, even the Jealous God (Deuteronomy IV. 24). Those sitting all crouched up are the violent against nature and art—the usurers. Those roaming incessantly are the violent against nature—the sodomites. For every second they halt, the penalty is to lie motionless under the fire flakes for a hundred years. Passing along between the edge of the Dolorous Wood and the burning sand they come to the spot where the River of Blood Phlegethon reappears to flow across the sandy plain. They proceed to cross by the stone embankment on which the fire flakes are extinguished by the humidity of the river. Here Virgil explains how the infernal rivers are produced by the tears and sins of all human generations since the Golden Age. Says Witte—"The tears extorted from the sinners, the blood shed by tyrants and murderers, all the filth of the sinful world flow down by secret conduits and are then transformed into instruments of torture." They meet a troop of spirits, coming alongside the bank. Dante was recognized by one who took him by the skirt and said "What a marvel!" "There are," says Professor Gardner, "few things in literature more poignant than Dante's cry of recognition, 'Siete voi qui, Ser Brunetto? (Are you here, Sir Brunetto?)'" It was Brunetto Latini, a Florentine Guelf and one of the leading figures in the political life of his native town. He wrote a prose encyclopædia in French, the *Livre du Tresor*, and a popular didactic poem in Italian, the *Tesoretto*, giving in condensed form much of the matter of the larger work. Dante knew these books well, especially the latter which was in the form of an allegorical

¹ *Ibid* VI 97.

² *Ibid* XIV 22-25.

³ *Ibid* 40-43.

journey. There can be no doubt that Dante's thought was largely moulded and directed by his illustrious friend. Let me quote again from Professor Gardner. "Nor is there, perhaps, anything that gives us a more terrible conception of Dante's claim to be a 'preacher of justice' than the fearful doom he has inflicted upon 'the dear kind paternal image' of the man who had taught him how to make himself eternal."¹

"And he to me: if thou follow thy star, thou canst not fail of glorious haven, if I discerned righly in the fair life; and if I had not died so early, seeing heaven so kind to thee, I would have cheered thee in the work."²

In the last group of this Round are the usurers—on the edge of that Seventh Circle where violence passes into fraud. Dante took a passing glance at them; he could recognize none by the countenance but only from the heraldic devices on the purses that hung from their necks. "It is noteworthy that he finds examples of this sin not among the persecuted Jews, but in the noble houses of Padua and Florence."³

The way to the Eighth Circle—Malebolge or Evil Pits—is down a yawning abyss. Phlegethon roars down it with deafening noise. Summoned by the girdle cord that Virgil had cast down, Geryon, "unclean image of fraud," appears, to bear them down on his back. Geryon was a winged monster with fair seeming human face and serpent trunk—apt type of fraud. To save Dante from the dangers of Geryon's darting tail, Virgil sits behind him. Malebolge is the Hell of Simple Fraud, *i.e.*, fraud against those who have no special ground of trust in their deceiver. Its form is that of concentric circular ditches or pits separated by walls and connected by a chain of rock bridges across from walltop to walltop. The whole is of a livid stone colour and lies on the slope. This type of dungeon aptly symbolises the hidden nature of the sin of fraud. There are ten pits in all. It were tedious to describe them each at length and the names and deeds of particular sinners famous in classic story, mediæval legend or history. The details of the punishments are rather offensive, yet after all are only terribly realised images of the sins themselves. Fraud being the vice peculiar to man, the demon tormentors have something of a human form (except in the case of the serpents that torture thieves). Each class of this sin has a special form of punishment representing the crime and observing the law of retribution. Thus in Pit I. panders and seducers are scourged by demons. Pit II is a cesspool in which flatterers are sunk and choked, for "that which cometh out of the mouth, this defileth a man." Pit III, the tomb of the simoniacs, is perforated

¹ *Dante Temple Primer*, p. 97.

² *Inferno* XV 55-60.

³ *Dante, Temple Primer*, Pp. 97.

throughout the bottom and sides with round holes, "purses" in which these money-sinners are thrust from sight head downwards and within the earth, while their legs writhe without, licked by flames of fire on the soles of the feet. Into this pit Dante was curious to descend. To do this they had to cross the bridge spanning this pit, and then Virgil carried him down—and afterwards up—the inner wall, which was not so steep as the outer one. Dante interrogates one sinner whose feet were noticeably active. This sinner, who was Pope Nicholas III (Orsini) supposes that the speaker was Pope Boniface VIII come before his due time (he died in 1303) to depress him further into the tomb and take upon his own feet the torturing flames. Thus cleverly was Dante able to assign a place in Hell for his hated Boniface who was yet alive. However Nicholas foretells that a greater sinner even than Boniface will within a few years push Boniface down and take his place. This was Pope Clement V, who under French influence transferred the Holy See from Rome to Avignon. How Dante hated unworthy holders of the papal chair yet revered the papacy itself! Albeit history can put forward a fair defence of these popes against whom Dante raged. From the bridge top the poets then looked into Pit IV and saw a long, slow, silent weeping procession of sorcerers, soothsayers and witches with necks twisted so completely round that the tears streamed down their backs. This was their punishment for seeking to pry into the future which belongs to the Almighty alone. Dante wept for pity and was sternly rebuked by Virgil "Art thou too like the other fools . . . who more impious than he that sorrows at God's judgment?"¹

About 6 o'clock on the morning of Saturday, Easter Eve, the poets come to the bridge over Pit V which holds the barrators who, to gain money, made secret and vile traffic of their public offices and authority. Here they lie covered with filthy pitch which clings to them and are rent in pieces by demons—the Malebranche or Evil-Claws—shadows of their sins. A demon arrives with one of the senators of Lucca slung over his shoulders and throws him into the boiling pitch and goes back for more senators. Other demons rush out from beneath the bridge (like secret sins) and fiercely torment him with pronged spears. The chief of these fiends appointed an escort of ten demons who lyingly say that there is a bridge further on. They well knew that the bridge over Pit VI had been broken down by the earthquake at the time of the Crucifixion and they hoped to lead the poets into a trap. Dante noticed their meaning gestures to one another and was afraid. This is the only instance where Dante seemed to be in personal danger—a prophetic reference perhaps to the future unjust charges of *barratry* brought against him by his ungrateful

countrymen. The demons were ever on the alert to pierce any barrator that showed himself above the pitch. One was caught and hauled up to be interrogated by Virgil—he promised to whistle and summon others if the demons would observe a truce. They drew back a little and the barrator leapt back into the pitch. Whilst the Evil-Claws were quarrelling among themselves over being thus tricked, Dante and Virgil proceed and when the demons came flying after them Virgil in real alarm carried Dante somehow or other down the steep outer slope into the next pit, Pit VI. The demons raged in vain but they might not leave their appointed place. In Pit VI were the hypocrites walking along the narrow bottom in slow procession, heavily laden in cloaks of lead, all gilded and dazzling on the outside. Across the path, trampled on by all, were stretched out in the form of crosses, Annas, Caiaphas and their fellow councillors who had condemned Jesus. The poets hasten up on to the bridge over Pit VII. This chasm or pit was very dark and filled with hideous serpents. These serpents wound themselves round the sinners, bit them and then a hideous transformation took place—men contracting into snakes, and snakes expanding into men. For sheer horror these Cantos XXIV and XXV are hard to parallel in literature. The utter confusion between men and snakes symbolises the neglect of the distinction between *mine* and *thine* and is fit retribution for *thieves*. Among these wretches no less than five Florentines are discovered. Dante is led to a bitter invective against Florence “whose name thus expands itself through Hell.”¹ Into Pit VIII it proved but too easy to see, for its flames swarmed as thick as fireflies at midsummer. These flames swathe and conceal evil counsellors.

“I sorrowed then and sorrow now again when I direct my memory to what I saw : and curb my genius more than I am wont lest it run where virtue guides it not.”²

Dante was always deeply conscious of the responsibilities of speech : deliverance and justice are not to be had by fraud nor by the arts of the fox. To employ that superior wisdom, which is the good gift of the Almighty, in deceiving others for any purpose is a spiritual theft of the most fearful kind. Dante pauses in his narrative to remind himself that his own speech, fraught with so great a power, must be ever under resolute control.

Burning within a double-tongued winding-sheet—for the voice from within made the flame move like a tongue—were Ulysses and Diomed. At Virgil’s request Ulysses tells the story of his last voyage past the Pillars of Hercules—across the equator into the other hemisphere till within sight of the Mountain of Purgatory where a tempest overwhelmed their frail vessel.

¹ Inferno XXVI 3.

² Inferno XXVI 19-22.

Let me quote Ulysses' words. 'O brothers! who through a hundred thousand dangers have reached the West, deny not to this, the brief vigil of your senses that remains, experience of the unpeopled world behind the sun. Consider your origin; ye were not formed to live like brutes, but to follow virtue and knowledge.'¹ The story has been well sung in English verse by Tennyson.

Then came another flame, containing the spirit of Count Guido da Montefeltro a'Ghibelline of high fame in war and counsel. The flame tongue, moaning, asks Dante about the people of Romagna. Dante, in words, sad, brief, precise and beautiful describes their condition under various petty tyrants. Guido tells Dante how he had given evil counsel to Pope Boniface in his feud against the Colonna family, being lulled into a false security, for the Pope had promised him absolution beforehand for his sin. The black devil that disputed possession of his dead body with St. Francis told him plainly that it was not possible to repent for and *will* a thing at the same time.' It is only fair to Boniface's memory to add that historians can find no other trace of this alleged wickedness. The poets pass on to the bridge over Pit IX where sowers of scandal and of schism are punished. As they pass round the circle they are cleft in twain or otherwise grievously cut by a devil with a sword and before they reach him again are made whole only to be slashed and hewed once more. Here Dante sees Mahomet and Ali—for it seems he regarded Mahomet as a schismatic, perverted Christian. Here he saw one maimed of both hands Mosca degli Uberti who had suggested the bloody revenge taken by the Amidei family against Buondelmonti (who jilted their kinswoman). This bloodshed introduced into happy Florence the Guelf—Ghibelline discord. Another sinner was seen to be carrying his head by the hair. Dante gazed on expecting to see his father's cousin Geri del Bello—but Virgil hastens him on and tells how he had caught a glimpse of Geri pointing with angry gesture and then departing in the crowd. From the bridge over Pit X they hear piteous groanings and lamentation from the falsifiers punished with innumerable diseases, in impure air and darkness. There are three classes—those who falsified in things, or in deeds, or in words. Alchemists, forgers, coiners, false impersonators, liars were smitten with leprosy, or madness, or fever, or dropsy and other hideous diseases. Thus were these sinners fitly falsified in appearance and condition. The stench was intolerable. In this last valley Dante listened without disgust, almost with pleasure, to an unsavoury quarrel between the Greek Sinon who tricked the Trojans and the coiner Adam of Brescia. His moral sense had become clouded. Virgil sharply rebukes him.

In the centre of Malebolge yawns a huge chasm, like an immense well, where the precipice falls to the Ninth and last Circle. Around the margin of this well are seen, like towers, the upper parts of captive giants, both of scripture and of mythology. They symbolise pride—in that they “sons of earth had made war against heaven.” “Treachery,” says Professor Gardner, “is a gigantic version of fraud, hence the guardians of this circle, in which traitors of all degree are punished, are monstrosities in magnified human shape.” Antaeus, less guilty and therefore less fettered than the others, hands Virgil and Dante down onto the surface of the frozen Cocytus, marsh of wailing, into which all Hell's rivers flow. Stagnant because it could flow no lower, frozen hard by the wind caused by the six huge batlike wings of the three-faced Satan fixed immovably in the ice, it lies on a slope and is subdivided into four belts distinguishable only by the positions of its captives. In Belt I Caina, betrayers of kindred are immersed up to the neck : in Belt II Antenora betrayers of their country are immersed up to the throat ; Antenor was reputed to have betrayed Troy : in Belt III Ptolemæa, betrayers of their friends and guests are supine—face upwards. Ptolemy the younger had betrayed Pompey. In Belt IV Judecca, betrayers of their beneficent lords are wholly inbedded in varying postures, like straws in ice. This progressive *deadness* both of the beings and of the landscape in Hell is most appalling.

In the first two Belts Dante finds many of his own countrymen. Nowhere else is Dante so utterly pitiless. In Belt *Antenora* Dante by will, or destiny, or chance, hit his foot violently against the face of one among the thousand faces made doglike by cold.¹ He was bitterly reviled but could not discover who it was, for the sinner wished not to be commemorated. Dante seized him by the hair and began plucking it out, “he barking and keeping down his eyes.” Another cried—“What ails thee, Bocca ?” Then Dante knew that it was the infamous Bocca degli Abbatì, a Florentine Guelf who for Ghibelline gold had cut off the arm of the Guelf standard bearer in the battle of Montaperti—thus leading to the Guelf defeat. A little further on Dante saw two heads frozen in one hole so closely that one was like a cap to the other—the uppermost was viciously gnawing the lower head. The gnawer was the Count Ugolino della Gherardesca, a Guelf leader in Pisa, who was reputed to have sold certain Pisan castles to his enemies ; the gnawed was his traitorous friend Archbishop Ruggieri degli Ubaldini, also of Pisa but a Ghibelline. The Guelfs in Pisa were divided into two rival sections. Count Ugolino intrigued with the Archbishop and succeeded in expelling the rival Guelf section. But the Archbishop, seeing the Guelfs weakened, had

Ugolino with two sons and two grandsons imprisoned and finally starved to death in the *Tower of Famine*. Says Professor Gardner: "The terror and pity of Dante's lines have made the tale of the dying agonies of the old noble and his children perhaps the most famous thing in the *Commedia*."¹

Uttering bitter imprecations against Pisa, Dante with his guide moved on to Belt *Ptolemæa* where the traitors to their friends and guests are lying supine with their very tears frozen on their eyes. Here a certain sinner, on Dante's promise to remove the ice from his eyes, tells him who he is—a certain Friar Alberigo, whose body informed by a demon still walks the earth but whose soul, guilty of such appalling treachery, has come down before the body's death to its eternal torment. So it is with others also. Alas ! Dante broke his promise. "I opened not his eyes for him, and to be rude to him was courtesy."² In *Judecca*, named after Judas Iscariot, the sinners were imbedded beneath the surface in all sorts of posture. The Arch-Traitor Satan—Emperor of the Dolorous Realm—from midbreast stood forth out of the ice. His head is triple-faced—the front face ruddy, the right shoulder face yellow, the left, black in symbol of his dominion over the wicked from the three parts of the earth, Europe, Asia, Africa and, as it were, an infernal parody of the power, wisdom and love of the Blessed Trinity. Beneath each face two huge bat-like wings flapped unceasingly : "With six eyes he wept, and down three chins gushed tears and bloody foam." In each mouth he champed a sinner with his teeth. "To the one in front, the biting was nothing, compared with the tearing for at times the back of him remained quite stript of skin."³ This sinner tormented by teeth and claws was Judas Iscariot, who betrayed the divine founder of the Church ; the other two were Brutus and Cassius, who murdered the imperial founder of the Empire. What a different picture this compared with Milton's Satan who still retained traces of his archangelic glory! It was now night, the night of Easter Eve on the earth, when the poets left this accursed place. Virgil carries Dante whose arms clasped him round the neck. When once man has thoroughly comprehended the nature of sin he will readily submit himself like a child to the guidance of reason and philosophy. Climbing down the shaggy side of Lucifer they reach the middle of his body when "my guide with labour and with difficulty turned his head where his feet had been before and grappled on the hair as one who mounts."⁴

1 *Dante Primer*, p. 100.

2 *Inferno XXXIII* 149-150.

3 *XXXIX* 55.

4 *Inferno XXXIV* 79-80

They had passed the centre of the universe and had now to mount up the chasm left at Satan's fall, below the opposite hemisphere to that whereon Jerusalem stands. The difficulty of turning round symbolises the difficulty of conversion from sin. The cavern wherein they now were was "no palace hall but natural dungeon with an evil floor and want of light"—wherein our poet sees Lucifer not as he had left him but with the legs turned upward. They are now in the opposite hemisphere and it is now morning of Easter Eve *over again*. Through this natural dungeon a rivulet descends bringing back to Lucifer the remains of sin that has been purged in Purgatory. By a strange and arduous way, typifying the persevering struggle out of vice, Virgil and Dant mount upward to the clear air—and on the shores of Purgatory in the southern hemisphere "they issued out, again to see the stars."

The Mountain of Purgatory has three main divisions—the lower slopes, from the shore to the Gate of S. Peter reached by a rough spiral road is Ante-Purgatory. Ante-Purgatory is a place of waiting where there is no punishment. Therefore the first Cantos of the Purgatorio come to the reader with immense relief, carrying him onward refreshed and re-enforced until he is ready to endure again the circles of suffering. Passing from the agonies of Hell directly to the severe pains of purgatorial punishment would have been too unendurable in dread monotony. Hence this interlude of relief granted to us by Ante-Purgatory. Within the Gate is Purgatory proper with its Seven Terraces having steep stairs leading from one to the other. On the summit is the Earthly Paradise. The ascent at first is difficult and laborious but grows ever easier with every upward step. No ascending is permitted by night—"for the night cometh when no man can work"—nor can man advance in spiritual expiation without the sun—the light of God's grace.

The ethical or moral scheme is expounded in Canto XVII when Virgil, discoursing on love, shows how the perversion or the disproportion, either by defect or by excess, of love is the seed of all sin, just as much as rightly directed and measured love is the seed of all virtue. The primary division is therefore threefold—love perverted, love defective, love excessive. This division sub-divides into seven. Perverse love has three terraces allotted to it, defective love one, and excessive love three. Strictly speaking no man can hate God, or himself—therefore his perverted love—*i.e.*, his delight in things which ought to grieve him—is directed only against others—his neighbours. Thus the *proud man* desires to excel and therefore rejoices in defeating the attempt of others: the *envious man* hates being overshadowed and made to think meanly of himself and his belongings and therefore rejoices in the misfortunes of others; the *angry man* wishes to make those who have offended him

smart and so rejoices in their sufferings. Inadequate or defective love causes a man to be slothful, spiritually and intellectually sluggish in the contemplation of God's goodness and sluggish in the will to pursue it. Excessive or ill-regulated love causes man to love too much things of secondary importance and to pursue, without observing the due limit, wealth, or the pleasures of the table, or carnal appetite. Thus, beginning with the more heinous Pride, we have in ascending scale Envy, Anger Sloth, Avarice, Gluttony, Lasciviousness,—the seven deadly sins. You will remember that in the Inferno we descended from the less heinous to the more heinous. Adding to this seven-fold division two other classes of sinners—those who died excommunicated from the Church and those whose repentance was delayed and very tardy—we get nine divisions. Finally we have the tenth part, the Earthly Paradise, not part of Purgatory at all but the goal to which all purified souls are led. Thus the Purgatorio, just as the Inferno, is built up on the number scheme of 3, 7, 9, 10.

This placing of Purgatory in the open air seems peculiar to Dante—he had no authority for so doing either from the Christian Fathers or the Schoolmen who generally describe it as being in the bowels of the earth next to Hell and presumably approached from another spot in the earth's surface. Similarly he had no patristic nor scholastic authority for introducing a frozen region into Hell. For this latter notion he was indebted to current medieval vision literature namely *The Vision of Tundal*, *The Vision of S. Paul*, and *The Vision of Alberic*. I think we can show why Dante alone of all writers treated Purgatory as being in the open air. It was logically a necessity of his symbolical treatment of the whole subject of man's life on this earth and after death and poetically essential not to have a Purgatory within the earth as a milder edition of a similarly situated Hell. You will recall how the Mountain of Purgatory was said to have been heaved up from the earth at Satan's fall to form the pedestal for the Garden of Eden in what was now to be a hemisphere of water. Before man fell into sin, his life was to have been spent in Eden spontaneously joyful and good with an ever-present consciousness of the love and nearness of God, and blessed with a knowledge of all earthly wisdom. In Heaven were to be added higher revelations completing his life as no longer an earthly but a heavenly being. When man fell therefore he forfeited immediately the perfect earthly life and ultimately the perfect heavenly life. His first task then is to regain the life of the Earthly Paradise by climbing back to the 'uplifted garden'—now so high aloft to symbolise, as I suppose, how hard it is for sinful man to obtain even earthly perfection, to symbolise the depth of his fall.

The keynote of the Purgatory is primarily ethical: Cato, type of the

moral virtues, is the guardian of the shore; Virgil, type of human philosophy, is the guide and the Earthly Paradise, type of the blessedness of this life, is the immediate goal. That blessed region has no inhabitants because of the failure of Church and State to bring man back to the life of Eden—a perfect earthly life. In that blessed region Dante meets Beatrice when he has reached the state of earthly perfection but Beatrice is not yet fully allegorised into the august impersonation of revealed truth. She was still Beatrice as he had known her in the happy idealising of the *"Vita Nuova"*—the "new life" of his youth.¹

In this portion of his pilgrimage Dante spent part of four days, with three nights. At the end of each day Dante rests and sleeps—before dawn on each day, except the first, he is prepared by a vision for the work of the day. The fourth day does not close in night—for it corresponds to the fourth and last stage of man's life, in which the soul "returns to God, as to that port whence she set out, when she came to enter upon the sea of this life."²

F. R. SELL.

(*To be continued*)

¹ *Vide note by Wicksteed* *Dante's Purgatory*, Temple Classics. p. 433.

² *Convito* IV 28.

ETHNOGRAPHY: ITS SCOPE AND METHOD.

INTRODUCTORY.

IN welcoming you to these lectures on ethnography, I desire to express my indebtedness to the University of Mysore for the opportunity they have given me, an old devotee of it, to expound to you a few of its leading features. The subject is too vast to be dealt with in the compass of a couple of lectures. But that, however, need not stand in the way of our getting a bird's eye view of it. The very vastness of the subject is the reason why more workers are needed to labour in this rather neglected field of research. Our State, as I will show presently, has laboured hard in making available much valuable information by the survey it undertook some years ago. It is, therefore, fitting that our University should endeavour to draw further public attention to it, especially at a time when interest in it is somewhat lagging, while, considered from its intrinsic worth, it ought to receive considerably more attention than ever before. Anthropology in its broadest sense, is the science of man. It studies the history of man in the light of the idea of evolution. Man in evolution—that is the subject in its largest sense. Anthropology, as Marett well puts it, studies man as he occurs at all known times. It studies him as he occurs in all known parts of the world. It studies him in body and soul together—as a bodily organism, subjected to conditions operating in time and space, which bodily organism is in intimate relation with a soul-life, also subject to those same conditions. Having an eye to such conditions from first to last, it seeks to plot out the general series of the changes, bodily and mental together, undergone by man in the course of his history. Its business is simply to describe. But, without exceeding the limits of its scope, it can and must proceed from the particular to the general, aiming at nothing else than a descriptive formula that shall sum up the whole series of changes in which the evolution of man consists.

Anthropology is thus closely connected with the evolutionary idea. In other words, Darwinism is the basis of anthropology. Though the science itself is old—quite old—its study has been made scientifically possible by Darwinism. Darwinism is however not a dogma but a working hypothesis. We suppose, under this hypothesis, something to be true and work away to see whether, in the light of that supposed truth, certain facts fit together better than they do on any other supposition.

And what is this truth that we take for granted? It is simply this: all the forms of life in the world are related together, and the relations manifested in time and space between the different lives are sufficiently uniform to be described under a general formula, or law of evolution. The particular doctrines of Darwin do not matter; they may or may not survive criticism. But the Darwinian outlook will endure. It is indeed the one thing that matters. "At any rate," as Maret well puts it, "anthropology stands or falls with the working hypothesis, derived from Darwinism, of a fundamental kinship and continuity amid change between all the forms of human life." The one thing permanent in regard to all the forms of human life is change. Not only that; the one thing permanent in all this change is fundamental kinship and continuity.

Anthropology, then, has not only to do with savage life but also with civilized life. It is a science which aims at truth for truth's sake. It specializes in the study of human beings, which itself is part of the larger particular group of living beings. As it takes over the principle of evolution from the science dealing with biology, anthropology may be regarded as a branch of biology. But it should be added that of all the branches of biology it is the one that is likely to bring us nearest to the true meaning of life, because the life of human beings must always be nearer to human students of life than, say, the life of plants.

Anthropology is not only a science but also a history. It studies human history in the light of the whole history of mankind, and against the background of the history of living things in general. It subserves the interests of philosophy as well. Knowing ly parts is science; knowing the whole as a whole is philosophy. From philosophy anthropology receives aid in two directions. Firstly on its critical side, it helps anthropology to guard its own claim and develop freely without interference from outsiders; and secondly on the synthetic side, by suggesting that of two types of explanation, for instance the physical and the biological, the more abstract is likely to be further away from the whole truth, whereas, contrariwise, the more you take in, the better your chance of understanding. Anthropology is not policy, though it aids it—as it ought to—very materially. It is well known that in the governance of a nation, science and its results are exploited from every practicable point of view. Sometimes it is hard to say where science ends and policy begins. Though this is so anthropology is a science, and thoroughly disinterested. It does not object, however, to use being made of its results. It would be gratified to see its discoveries better appreciated and more largely used for the betterment of mankind. Anthropology, indeed, helps us to understand man, and therefore mankind, better; and if we know mankind better,

we can serve it better. To the administrator and the missionary in particular, a knowledge of anthropology is in the highest degree necessary. To the comparative religionist, it is invaluable. If physiology is the handmaid of Medicine, anthropology is the sheet anchor of the politician and the comparative religionist.

The exact scope of anthropology rightly conceived may be set down in a few words. It includes the history of pre-historic man, his habitat, life and belief, as we can glean them from the remains he has left to us. Then it includes as much of the study of human anatomy as to enable us to know something of the physical side of man, so that we may be in a position to distinguish the obvious differences between the main races of mankind. Then again, it includes a study of the various forms of human society—social organization, including family, clan, etc., language, custom, law, religion—and finally the individual himself, considered by himself.

Thus far for a general view. Now, we may disentangle a little the complex features of the subject. The tendency latterly has been, among the world's anthropologists, to separate the various parts of the science of anthropology for the purpose of furthering research among students. In this scheme of study, the basis of each branch of what may be termed generally anthropology is seen to better advantage. The scheme I outline below is one adopted by the Board of Studies in Anthropology of the University of London. You will see the position of ethnology and ethnography in that scheme.

ANTHROPOLOGY.

A. PHYSICAL ANTHROPOLOGY.—(Anthropography, Anthropology of some writers.)

(a) *Zoological* (Somatology, including craniology, etc.)—Man's place in nature as evidenced by the study of comparative anatomy and physiology, more especially of the Anthropoidea.

(b) *Palaeontological*.—The antiquity of man as evidenced by fossil and semi-fossilised remains, including the geological evidence.

(c) *Physiological and Psychological*.—The comparative study of the bodily functions and mental processes.

(d) *Ethnological*.—The comparative study of the physical characters which distinguish the various races and sub-races of man. Classification of the human race in accordance with physical and psychical characters. Geographical distribution of the varieties of mankind. The influence of environment on physique.

B. CULTURAL ANTHROPOLOGY.—(Ethnology of some writers.)

(a) *Archæological*.—The antiquity of man as revealed by the

earliest remains of his handiwork. The pre-historic periods. Their characteristics, sequence and duration. The survival of early conditions of culture in later times. (Folk-lore.)

(b) *Technological*.—The comparative study of arts and industries; their origin, development and geographical distribution.

(c) *Sociological*.—The comparative study of social phenomena and organization. Birth, education, marriage and death. Customs and systems. Social and religious associations. Government and laws. Moral ideas and codes. Magical and religious ideas and practices.

(d) *Linguistic*.—The comparative study of language.

(e) *Ethnological*.—The comparative study and classification of peoples based upon cultural conditions and characteristics. The influence of environment upon culture.

What is known as ethnology, therefore, in this scheme, falls under two heads: partly under physical and partly under cultural anthropology. Ethnology, therefore, has to be studied under these two heads. Under the physical side ethnology studies comparatively the physical characters which distinguish the various races and sub-races of man. It also classifies the human race in accordance with physical and psychical characters. It also treats of the geographical distribution of the varieties of mankind. Finally, it studies the influence of environment on physique. On the cultural side ethnology studies from the comparative point of view and classifies peoples on the basis of cultural conditions and characteristics. It also notes the influence of environment upon culture. Ethnology, then, is mainly concerned with races, their classification, distribution and transformation. This work, it approaches from two sides; one from the purely physical side and the other from the cultural side. Each is the complement of the other; the result of one being checked in part or wholly by the result of the other. Ethnography, on the other hand, has primarily to do with people. Its scope, indicated under the heads "Technology," "Sociology" and "Linguistics," I have referred to above. It approaches from the descriptive side and studies people solely from the cultural side. It includes the comparative study of arts and industries; their origin, development and geographical distribution; of social phenomena and organization, including birth, education, marriage and death, customs and systems, social and religious associations, government and laws, moral ideas and codes, magical and religious ideas and practices; and finally the comparative study of language. The scope and content of ethnology is indicated by the term "Race" and the filiation of different people to one "Race." On the other hand, the scope and content of ethnography is indicated by the term "People," and their

manners, customs, laws, religion, etc. The study of the latter leads usually to conclusions regarding the former. For the study of ethnography is all important for a proper classification of races or for understanding aright their filiation or even distribution. In this connection, the term "Race" is used to indicate the main divisions of mankind, which have important physical characters in common. Thus all woolly-haired peoples (Ulotrichi) may be said to belong to one race but usually the Negrito, Bushmen, Negroes, Papuans and others are spoken of as races. The Jews although not of absolutely pure origin, are generally, but from this point of view erroneously, spoken of as a race; again there is no such thing as an English or an Irish race. Similarly the term "People" is here used to indicate a community inhabiting any given area independent of race.

Ethnology, in one word, is that branch of anthropology which deals with the relation of the different varieties of mankind to each other. Anthropology treats its subject primarily from the physical side; ethnology treats the same both from the physical and physiological sides, borrowing, however, its anatomical data from anthropology. Anthropology is more technical and special, while ethnology is more all-embracing. Both must, however, be regarded as complementary. Ethnography is different from both. It is purely descriptive, and deals with the characteristics, usages, social and political condition of peoples irrespective of their possible physical relations or affinities. The subjects of ethnography are the various groups of people taken independently one of the other; the subjects of ethnology are the same human groups regarded as so many correlated members of one or more primordial families. Hence ethnology, like anthropology, necessarily proceeds by the comparative method, co-ordinating its facts with a view to determining such general questions as the antiquity of man; monogenism or polygenism; the geographical centre or centres of evolution and dispersion; the number and essential characteristics of the fundamental human types; the absolute and relative value of racial criteria; miscegenation; the origin and evolution of articulate speech and its value as a test of race; the influence of the environment on the evolution of human varieties, on their pursuits, temperament, religious views, grades of culture, the evolution of the family, clan, tribe and nation.

Ethnography is, as a science a recent branch of study. But the materials for its study have been for ages with us. Among the older writers Herodotus, Lucretius and Strabo among the European classical writers may be mentioned. Marco Polo (13th cent.), Ibn Batuta (14th cent.), Joas de Banos (15th cent.) were also close observers of the peoples of the countries they visited. From the tales included in the

travels contained in collections such as those of Hakluyt (16th cent.), Pincke (16th cent.), and Pinkerton (17-18th cent.) much useful ethnographic information may be gleaned. Among more recent travellers and explorers may be mentioned Admiral Byron, James Bruce, L. A. Bougainville, Sir John Barrow, Captain Cook, de Lesseps and Pallays. The Jesuit missionaries of the 16th to the 18th cents., who worked among the people of Canada and India, give equally valuable information in their letters and works. Nineteenth century missionaries have added materially to our information in this branch of study from almost every corner of the world. So far as South India and Mysore is concerned there is the work of the famous Abbé Dubois (1770-1848) which is a mint of information on Hindu customs, manners and ceremonies. In the Vedas we have frequent and pointed references to the indigenes of India. Their physical appearance is particularly touched upon by the Vedic singers. A serious and close study of the Vedas from the ethnographer's point of view is still a desideratum.

From a consideration of the physical and cultural sides, mankind has been divided into certain main ethnical types. These types are of a highly debatable character. Being mainly based on certain physical tests, they are likely to be—and frequently have been—questioned. Not only each physical test has been severely criticised but also the whole series has been challenged by some noteworthy critics. The chief of these tests are: skin-colour, hair, stature, nose, face and head-form. There are, besides, other characters which are employed by physical anthropologists which necessitate careful measurements on the living form or on the skeleton, and the observation of certain details of anatomical structure. These and other details regarding this important topic of ethnology will be found in text-books of physical anthropology. I mention them here because the study of these details is not to be neglected under the erroneous belief that they belong to ethnology proper and not ethnography. In India—or for the matter of that in Mysore—the study of this branch of anthropology is equally important. Only one word of caution has to be uttered: such details are not everything. They have their value, but they do not form the last word in the domain of ethnic affiliation. I would invite attention, for the purpose of showing how slippery is the ground on which we stand in this particular matter, to the wise words uttered by Dr. Haddon in one of his latest publications. "Man is a variable animal, and being able to travel long distances, a considerable mixture between different peoples has taken place; hence it becomes extremely difficult in some cases to determine whether the given modifications from the average type are due to the inherent variability of man, to reaction to the conditions under which he is living or has recently lived, or to actual race-mixture."

These considerations necessitate caution in forming an opinion concerning the affinities of any people, and at the same time they demonstrate the extreme difficulty there is in framing a consistent classification of mankind." I would illustrate the sanity of these observations of Dr. Haddon by reference to the address to the Anthropological Section of the British Association delivered in 1919 by Professor Arthur Keith, President of the Section, in which he enlarges on the theory he propounds in a singularly fascinating manner, *viz.*, that the conformation of man and ape and of every vertebrate animal is determined by a common growth-controlling mechanism which is resident in a system of small but complex glandular organs. I would commend his strikingly able address to all interested in this branch of study. It shows what interest physical causes can contribute towards the creation of the divergences which we now find in the leading ethnic types of humanity—Caucasian, Mongol and Negro.

Before we leave this part of our subject, I would refer to the comparative study of the psychical elements of man. While the comparative study of the physical body of man as he is found in different parts of the world has received fairly adequate attention, the study of his psychical part has not obtained as much notice as its inherent worth requires. To get into the skins of the indigene is not only a political virtue ; it is also a scientific virtue. It is the best way to obtain an inside view, as it were, of the psychology of a tribe, people, race, or nation. There are two methods of study enunciated in this connection : (1) the introspective, by which one's own mental states are observed ; (2) the objective, by which the conduct of others is observed. Both may be studied without or under experimental conditions. It is very difficult to secure reliable introspection in backward peoples, and also to interpret the mental state of an individual by observing his behaviour. The objects of psychology in this domain are five in number:—

- (1) The study of mind compared with non-mental processes.
- (2) The study of the mind of the individual compared with other minds.
- (3) The study of the normal mind of the individual compared with the abnormal.
- (4) The study of the mind of one race with that of other races.
- (5) The study of the mind of *genus homo* compared with that of animals.

All these are of interest and value, especially the second, fourth, and fifth. Ethnical psychology is of the utmost value for on it depends the growth of respect for each other among races who are brought into contact with one another through diverse causes. The best way to obtain

glimpses of it is by actual living amidst the people whose mind you want to know. This has been done notably by American ethnologists. At first, few, even among ethnologists, grasped the importance of this branch of study. Seventy years ago, (in 1853) a German writer said: "It is not worth while to look into the soul of the negro. It is a judgment of God which is being executed that, at the approach of civilization, the savage man must perish." You have only to compare this with the following observation of R. E. Dennett in his *At the Back of the Black Man's Mind* written seventeen years ago in 1906: "I cannot help feeling that one who has lived so long among the African's and who has acquired a kind of way of thinking black, should be listened to on the off-chance that a secondary instinct, developed by long contact with the people he is writing about, may have driven him to a right, or very nearly right, conclusion." Or take this from *A Tropical Dependency* by Flora Shaw (Lady Lugard): "It may happen that we shall have to revise entirely our view of the black races, and regard those who now exist as the decadent representatives of an almost forgotten era, rather than as the embryonic possibility of an era yet to come." Bastian was the first to grasp the close connection there is between ethnology and psychology. He was the father of the study of what he termed as "folk psychology." He organized it by introducing wide scientific, inductive and comparative methods. He demonstrated first the surprising uniformity of outlook on the part of the more primitive peoples, and secondly the correlation of differences of conceptions with differences in material surroundings, varying with geographical conditions. This branch of study is still to obtain its right recognition in this country. The term "psychology of peoples" is a familiar one and even books have been written on the psychology of special peoples (for example, *The Psychology of European People* by A. Fonilée) but they are not based on experimental evidence, as rightly remarked by Dr. Haddon. In recent years experimental psychology has received considerable attention in Europe. In most universities experimental psychology is a recognized branch of study. Almost every variety of mental condition is investigated there. So far the experiments have been confined to subjects of European descent. The extension of this work to India would prove advantageous. Some years ago, the late Dr. H. R. Rinis, Professor of Experimental Psychology at Cambridge, came to Madras to study the Nilgiri Todas. With this aid Mr. Thurston and myself made some arrangements to study experimentally the subjects who came before us for anthropometric measurements. It was clear to us from the start what an excellent field there is for research work in this line in this country. Curious to state, in colour tests we found certain tribes and castes particularly drawn to

particular colours, they being quite unaware of this. Test by illusions gave us some exceedingly interesting results. A better laboratory equipment than we had and more systematic work of this kind is likely to yield valuable results. Then alone would there be suitable material for writing on the psychology of particular people. Perhaps I may conclude this all too brief reference to an important topic by the following remark of Professor R. W. Woodworth, who sums up his own observations and those of others as follows:—"We are probably justified in inferring that the sensory and motor processes and the elementary brain activities, though differing in degree from one individual to another, are about the same from one race to another." Here is something to ponder about for those who think differently of different races.

C. HAYAVADANA RAO.

THE RELIGION OF THE ARTIST.

MANY people when they hear the phrase, "the religion of the artist," ask: "Have artists a special religion? In what way can the religion of the artist be considered different from what we know as religion?"

The answer to this question depends very largely on what we mean by religion. If we mean some particular creed which an individual professes then art cannot be said to have any special religion of its own, because artists belong to all nations and to all times. But if by religion we mean the way a man bodies forth, in his thoughts and feelings and deeds, his realisation of the universe, then the artist has a religion of his own. There is only one universe in which we all live; it reveals itself to us as facts and events. But this changing universe must always be translated by each one of us in some term of intelligibility. We are not mere mirrors of what is happening outside us: we are rather transformers of the energies of the universe.

Now the way that the individual transforms the changing universe is his religion. If that definition of religion is true then there are as many religions as there are individuals and I think that this is so. Nevertheless, since mankind can be grouped into various types we can say that there are various types of transformation.

There is a type of transformation which we generally recognise under the term Religion, and that is transformation under the force of character of a great personality. The true Christian is he who transforms life according to the technique of Christ, for Christ had a technique—the way He felt, thought, surveyed and acted—and the Christian is he who accepts that technique as his highest model. Similarly is it with the Buddhist. And so religion after religion teaches us the technique of a great personality.

But there is another transformation, that which reflects itself as science. The scientist is interested in grouping facts and laws and in stating that grouping through his personality, for there is no such thing to be found in practice as abstract theoretical science. It always comes to us through individual scientists. The great scientist is one who has a great personality, who gives us his vision of Nature, grouped into categories and laws which fascinate the mind. Again, some minds are keenly interested in modes of organisation. These are drawn to political science; and in the political sciences with their branches of economics and

statecraft and so on we have an example of the way in which the universe transforms itself through a type of personality. Similarly is it with regard to the philosopher. He is more interested in the relation between the individual and the whole of which he is a part, and the expression of his power to transform comes as his philosophy. But life is always one, and in its finalities indivisible; all these statements—religion, science, philosophy—are statements of one reality.

Now another statement of reality other than religion or science or philosophy is Art. But what do we mean by Art? For it is only when we have some general ideas of what Art is that we shall be able to conceive of the religion of the artist. I can only suggest one or two descriptions, which we shall find in the writings of great artists. Schiller called it "that which gives to man his lost dignity." Goethe called it "the magic of the soul." I think we can perhaps see the conceptions of Art best in the stages through which Wagner went, as he began to realise his work more and more profoundly.

To him at first Art was "the pleasure one takes in being what one is." In other words, it was a joy in living. But as he lived and created and transformed he began to see deeper, and then to him Art was "the highest manifestation of the communal life of man." It was, as it were, a synthetic manifestation of our common humanity. As he lived and felt his work more he came to the conclusion that Art was "the most powerful momentum in human life;" that is, something within the soul of man which, when once started, goes on with undiminishing vigour for eternity. Art can best, I think, be thought of as the only form of expression which, even if only inadequately, tells us something of the

Infinite passion, and the pain
Of finite hearts that yearn.

There is no other form of transmutation which brings us so near to the inmost heart of humanity, in its travail, as Art.

It is quite true that we have in Art many branches—painting, sculpture, music, dancing, and so on. All these branches of Art have a intensely ethical meaning. Many talk of "Art for Art's sake," as if Art could be conceived of as some kind of transmutation of sensation or imagination irrespective of its relation to the welfare of mankind. One will find, if one studies Arts in any one of its branches, that when that department of Art is at its highest, it is most ethical. That is to say, it has a direct message for man.

Take, for instance, the most glorious period of Greek Art, just at the time when Phidias created the Parthenon. Greece was then full of the statues of the gods. Each of these statues was created from a living model, but to the artist each statue embodied a cosmic concept. Pallas

Athena, the maiden Goddess of Wisdom, was not to the artist merely a beautiful maid, but an intensely ethical concept of a Divine Wisdom that was militant, the wisdom which "mighty and sweetly ordereth all things." Apollo at that epoch was not just a handsome youth, but rather the divine inspiration in the heart of man. The great artists of the time, when they worked in stone, attempted to embody ethical concepts in stone. That is why the Greek civilisation of that period stands out still in such a unique fashion. That is why we read the plays of the time, the philosophies; and as we look at the sculpture, we feel that we are moving in an age where men seem to be larger than they are to-day. Soon after this great climax, when Art was seen in its ethical revelation, we have the decline, beginning in a sculptor like Praxiteles. Though his work is extraordinarily graceful, yet in him the ethical concept gives place to individualised figures; mere sentiment is emphasised, and the artist does not dream of expressing a cosmic concept through his sculpture.

Ethical concepts are inseparable from Art, when Art gives its true message. That is, we can in some ways truly define Art as "the Soul of things." Wagner suggests this in the case of music when he says that what music expresses is eternal, infinite and ideal. It does not tell us of passion and love and regret themselves.

We go behind in Art from the particular-in-time to the general-in- eternity. With regard to landscape painting, when you contemplate a great painting you look through that painting into a vision of nature, which is still in eternity, which reflects the mind of a cosmic creator. The painter looks at the view, but he selects from it as paintable only what his imagination can grasp of that particular complex of light, shade and form which as a mirror reflects a divine ideal. It is the same with regard to great poetry. Take one of the greatest poems which the world contains, the *Divine Comedy* of Dante. Carlyle says of that magic structure that it is "a great supernatural world cathedral, piled up there, stern, solemn, awful; Dante's world of Souls." However small be the size of the thing the true artist creates, there is in that thing something of the totality of the universe. It is because of this quality of Art that Blake so truly said that the whole creation "groans to be delivered," for the artist is in many ways he who helps to bring forth the newer humanity. Therefore it is that Carlyle, who was not an artist but a profound philosopher, who could understand the message of Art, thus speaks of Art: "In all the true works of Art wilt thou discern eternity looking through time, the Godlike rendered visible."

Because the artist is dealing with the totality of things, his particular transformation, which may be a poem, or a statue, or a symphony, is related to all possible transformations. A poem is expressible in a song,

in a statue, in a painting, in rhythmic music. Dancing and music are closely related. There is a subtle unity within all Art's various branches.

In Art, then, we have another revelation of what life is, other than the revelation which religion gives, or which science gives, or which the philosophies give. It is a revelation unique to Art itself. How is this particular revelation to be obtained by the artist? He can sense it only by grasping the reality. He must train himself to know "things as they are;" he must discern the relation of the part and the whole. The artist's judgment must be the truest judgment, if he is to be a real artist. To the artist, before he can create, the outer universe must pour in through his senses. It must pour into him in a larger measure than with ordinary men. It is for the artist to see shades of colour that the ordinary eye does not see, to see beauty in line which passes unnoticed by the ordinary man's eye. He has to have a keener sensitiveness. But you do not make the artist merely by refining his senses. His mind has to come into play, for the artist must transform, he must not merely reproduce. A camera with its lens can reproduce a scene in nature more accurately than the artist; but the artist has to transform what he sees with the emotions, the mind, the imagination, the intuition, the spirit itself. The whole nature of the artist has to be brought to bear on the work of transformation.

If the artist is to do his work of creation, he needs to have an openness of mind to science, to philosophy, to religion, to all problems as they are transmuted by the various great departments of life. For all these are related. The more there is of religion, the more fully the message of science can be understood. The more a man knows of science, the higher and nobler is his conception of religion. I know no one among the poets so in touch with the scientific conception as Tennyson. He was intensely scientific in his observation of nature, and that is why, before Darwin formulated some of his ideas, Tennyson intuited them and told us of nature that was "so careful of the type," but "so careless of the single life." Tennyson describes flowers as the botanist sees them, and yet his exquisite imagination irradiates description, till we get, not the flower, but the soul of the flower. One can be scientific without losing anything whatever of the quality of Art.

The religion of the artist, then, is to accept the universe as it pours into him from all the avenues of religion, science, philosophy, political organisation, and ideals of service. With all these things he must identify himself if in his own particular branch he is to give a message which is to remain in eternity. Now the artist's message is not to the universe in the abstract; it is distinctly to mankind. Therefore the artist

has to take as his motto what Carlyle so well expressed: "Wouldst thou plant for eternity, then plant into the deep infinite faculties of man, his Fantasy and Heart."

The work of the artist is not the work of the scientist or the philosopher, but his own work, whereby he appeals to the infinite faculty of "Fantasy," as Carlyle calls it, which is inseparable from the inmost heart of man. But if the artist is to appeal to this infinite faculty of man the first thing necessary for him is *serenity* among his ideas. In all the great periods of art there is such serenity. In the generation of Phidias, for example, men were sure of themselves and of their view of life. There are no doubts befogging the mind of an artist like Fra Angelico; there is balance and serenity in him, and that is the reason why he stands as one of the greatest painters. Unfortunately in our days there is little serenity in ideas for anyone. The average man, busy with his ordinary interests in life, can afford to go about with an uncertain mind, with many problems unsolved; but not the artist. So long as the artist goes on from year to year, uncertain as to what he is himself, and what is the purpose of the world, the transformation which he bodies forth in his heart has only a temporary merit, a meaning which is for his generation or century only. If he is to create something which is to last for eternity, then he must attain serenity.

Everything which the artist is, as an individual, is reflected in the thing which he creates. We owe a great debt of gratitude to Ruskin, who pointed out the intensely ethical relation between the thing created by the artist and what the artist is as man. The narrowness of mind of an artist is reflected in the phrases of his music, in the colours he lays on; everything which the artist creates reflects his smallness or bigness of soul. There is no such thing as an art which can be separated from the artist as a man. He is a transformer, but if his character is coarse his art is coarse, though it may not be recognised as such in his own generation. Because of this intimate relation between the artist's nature as a man and what he creates, there can be nothing in the artist's life which is not important. A violinist's thoughts, his words, his deeds, his ambitions and his jealousies are reflected in the tones which he brings out from his violin. Sometimes you get a purer message of art from some boy or girl who is playing or singing some simple thing than when an elaborate thing is played by a virtuoso or sung by a prima doma. The personality which bodies forth life is purer, and so you come nearer to the eternal realm of art.

The artist's religion is a very wonderful one, unique, telling us of something which we did not know through religion or science or philosophy. Each one of us can get Art's own message, suited to our

needs, and suited to the occasion and our stage in growth. Art has a most intimate relation to the individual. Few of us are creative artists in the technical sense; but all of us are transmuters of life, and if we can learn to transmute a little also through the faculty of Art our realisation of life becomes fuller than before. A Chinese proverb says: "If you have two loaves, sell one and buy a lily." That is a magnificent saying; it is a statement of the greatness of a nation. The ideal which a statesman should have before him for his country is that the state's organisation should be such that every man is given an opportunity to be at his best.

Now science cannot secure this. Science can never appeal directly to the individual, but Art can. It is Art which moulds the soul of a people and creates and civilises. Science comes merely to crown a civilisation, but the moulding, the fashioning, the creating of a civilisation is done through Art. So powerful is this subtle influence of Art to awaken the hidden best in the individual that I go so far as to say what may seem nonsense—that the more Art there is in a nation the more business there is too. For when each individual is artistic, and responds to the message of life which Art can give, he is a bigger individual, he is a more powerful dynamo of the forces of life. When thereafter he turns his mind to the development of the nation's resources, he sees the problem of business in a larger way. At once one can see what an utter calamity is courted if a state orchestra, for instance, is disbanded for want of money. The wealth of Sydney is not in its Wool Exchange alone: it is also in the Conservatorium of Music. Thousands go there to re-discover themselves as souls. All men must grapple with the problem of life in a more dignified and grander way as they grow. We have to realise a new ideal with regard to prosperity. The prosperity of a nation is not to be judged by its bank balances, but by the "soul force," as we say in India, which the nation contains, by that spiritual content which is in each individual in the nation.

To each one of us Art has its message, even though not all of us are creative artists. In this life which we are living, there is a curious duality of the totality and the unit, of the general and the particular, of God and man. And these two parts of existence are as two great deeps calling to each other, and when the great deep from above sounds and the great deep down here, which is man, responds, then begins real life. We delude ourselves into thinking that we are now living; many of us are but as shadows flickering through life. But the time comes when we can take hold of life in a true and forceful way. Then we do not doubt, then we need not go from creed to creed; and instead of looking for the meaning of life we know we are ourselves that meaning. Wagner, a great creative artist, sensed all this, for thus he describes Art: "Art

is the accomplishment of our desire to find ourselves again among the phenomena of the external world." We are the source of power in the universe, but we have to find ourselves, and Art enables us to find. It is there that Art joins hands with the profoundest mysticism. In India from the beginning of time it has been said that the only religion which a man should possess is—"I am God." That is the proclamation of Hinduism. But it is the proclamation of all genuine Art, for the individual finds himself again as that permanently unchangeable spiritual entity, as he bodies forth Art.

I hardly know how to conclude this discourse on a subject about which I feel so profoundly, because to me, who am not an artist in the ordinary sense, Art means so much. It supplements every other phase of knowledge or being which I have found in life. It leads us ever onwards; it is that creation on which one throws the lights and shadows of one's own nature. It is a wonderful thing to add to one's own knowledge of life even a little bit of the feeling of life as the artist feels it. I only wish that every child in our schools could be taught to feel life in this new way. We tell them now of science, we tell them of history—but we do not yet tell them of that subtle new way of showing life and transmuting it which is Art.

One need not be a creative artist in the ordinary sense of the term. But one can at least be an appreciative artist, and create with one's appreciation an element of the great Art structure of the world. We all have to live; but why need we live like men when we can live like angels? It is for Art to show us that there is a way to live not in time, but in eternity, not dogged by mortality but with deathlessness as our crown. And that crown is for all of us here and now, if only we will seek it; and the way of the seeking is through Art. For it is one way of giving; and to give is to live.

H. G. RAMAIYA.

IN DEFENCE OF MATHEMATICS.

A RESPONSIBLE educational officer recently remarked in an assembly of teachers that mathematics should have no place in the school curriculum, as it lacks the humanitarian element of subjects like poetry, history, economics; and that he would gladly welcome the day when mathematics should be knocked on the head! Surely there are other ways of rousing the dull imagination and the dormant emotions of a child than by reading to him a heroic poem with proper gestures, and mathematics does indeed furnish one of these other ways.

Is there anything which can more forcibly impress on the child-mind the strength of purpose and the strength of will of a great scientist who is so absorbed and engrossed in his researches that he would not mind death itself than the story of Archimedes narrated by Plutarch? "Marcellus was most of all afflicted at the death of Archimedes, for as fate would have it, he was intent on working out some problem with a diagram and having fixed his mind and his eyes alike on his investigations, he never noticed the incursion of the Romans nor the capture of the city. And when a soldier came up to him suddenly and bade him follow to Marcellus, he refused to do so until he had worked out his problem to a demonstration, whereat the soldier was so enraged that he drew his sword and slew him." The scientist had such a love for his subject that even the penalty of death would not induce him to part with his subject. Certainly, there must be something attractive, inspiring, and emotional in the subject to make a man so warmly devoted to it.

It is the one subject in the whole range of the school curriculum which can give to a child the idea of what intellectual absorption means, what intellectual enthusiasm is like and what joy one feels after solving an intractable problem. We are told that the great German mathematician Weirstrass, who inaugurated the arithmetization of mathematics, missed one morning an eight-o'clock class at the *gymnasium* where he was teaching science, gymnastics, and writing. The Director of the gymnasium went to his room to ascertain the cause and found him working zealously at a research which he had begun the evening before and continued through the night, unconscious that morning had broken. The discovery of a solution in mathematics gives the child such a feeling of satisfaction as is not to be experienced in any other school-subject. The joy of a mathematician "treading the silent desert of a

great new thought" is nearly divine and lives for all time, and there is something of this joy of discovery even in the ordinary workings of the mathematics class in school. But it is, of course, in the higher studies to which these lower studies lead that mathematics is most *humane*, most inspiring.

The birth of every scientific idea takes us a step nearer Nature, nearer God, and this must necessarily give a thrill of joy to the discoverer—a thrill which stirs humanity into greatness. Witness the joy experienced by Sir William Rowan Hamilton, as the spark of the fundamental Quaternion formulæ ($i^2 = j^2 = k^2 = ijk = -1$) flashed forth in his mind during a walk and he could not resist the impulse to cut these formulæ with a knife on a stone of Brougham Bridge; the delight of Kepler when he came to know of the famous contrivance of the Scottish Baron John Napier, the logarithms, by which multiplication and division can be replaced by addition and subtraction; the admiration for the same Napier of Briggs, the ardent mathematician and calculator, who wrote—“I hope to see him this summer if it please God, for I never saw book which pleased me better or made me wonder more; I purpose to discourse with him concerning eclipses, for what is there which we may not hope for at his hands?” and actually undertook a long journey to see this great inventor and “to know by what engine of wit or ingenuity he came first to think of that most excellent help unto astronomy.” Witness again the joy of Leibnitz, the discoverer of the secrets of the differential calculus, when he exclaims—“Behold, a most elegant way by which the problems of the inverse method of tangents are solved or at least are reduced to quadratures !”

If there be really nothing emotional and artistical in mathematics, why should Sir William Rowan Hamilton call Lagrange's *Mecanique Analytique* a kind of scientific poem, in which Lagrange had deduced with his newly discovered calculus of variations the whole system of mechanics so elegantly and harmoniously. Was it not the great scientist Helmholtz who wrote in his autobiographical sketch—“Thus it happened that I entered upon that special line of study to which I have subsequently adhered, and which, in the conditions I have mentioned, grew into an absorbing impulse amounting even to a *passion*”? Is there a greater epic poem than the elements of Euclid, that “true world-epic of the majesty of Space”? There is hardly anything to match it either in its far-reaching and immense utility or in its grand artistry, to which it owes its long endurance and influence. Mathematics is a beautiful subject, and the study of it needs must give pleasure to the student thercof, and it is this particular element in it—that of giving pleasure—that has made its devotees so absorbed in it and indeed made them develop it to such an

unheard-of extent that to-day we may say it is the most developed of all the sciences. The progress of the other sciences depends on that of mathematics. Forty years ago Arthur Cayley, a famous Cambridge mathematician, whose legal training had its influence on his mathematical expression, wrote—"It is difficult to give an idea of the vast extent of modern mathematics. This word 'extent' is not the right one. I mean extent crowded with beautiful detail,—not an extent of mere uniformity such as an objectless plain, but of a tract of beautiful country seen at first in the distance, but which will bear to be rambled through and studied in every detail of hill-side and valley, stream, rock, wood and flower." In mathematics new discoveries never disprove older principles. They strengthen and improve them; seldom is anything lost or wasted.

It is only the prejudiced person, whose prejudice against mathematics had perhaps its origin in an initial faulty presentation of the subject to him, who will say that mathematics is "hard, crabbed and repulsive to common sense." It is not so. It is, as Lord Kelvin has put it, merely "the etherealisation of common sense." The present is a particularly happy moment for a pure mathematician, as it marks one of the greatest triumphs of pure mathematics, though the triumph happens to be due to a man who would not like to call himself a pure mathematician—Albert Einstein. But he has done more than any other mathematician "to vindicate the dignity of mathematics" by putting what is known as "physical reality" in its proper place. The so-called "reality" of the physicist is as much removed from common sense as the "unreality" of the abstractions of a mathematician is supposed to be. At any rate, the mathematician does not pretend to investigate the physical reality at all. He merely supplies a beautiful complex of abstract schemes for others to select such as fit in with their views of reality. This explains why mathematics is now more and more used in such subjects as biology, physiology, political, commercial, and even domestic finance. There is hardly any product of the human intellect which does not require for its fruition and scientific advancement the aid of mathematics.

The early Hindu writers on mathematics fully realised the all-pervading nature of mathematical ideas and the indispensability of mathematics in all transactions temporal or spiritual. One of the Hindu mathematical poets exclaims—

बहुभिर्विप्रलापैः किं त्रैलोक्ये सच्चराच्चे ।
यत्किञ्चिद्वस्तु तत्सर्वं गणितेन विना नहि ॥

"What is the good of saying much in vain? Whatever there is in all the three worlds, which are possessed of moving and non-moving

beings—all that indeed cannot exist as apart from measurement.' There is an echo of this in another land and clime and in another age when Prof. A. N. Whithead says "The world is out and out infected with quantity. We cannot evade quantity." In other words, mathematics is inevitable and inexorable.

In a course of general education, mathematics must find a place.¹ Without mathematical education one cannot get "the mastery of form by eye and hand and thought," and cannot become the conscious disciplined artist, at once thinker and doer. For the average student a mathematical course should be designed to cultivate the habit of intellectual honesty, to form a correct estimate of the importance of mathematics, and to provide some acquaintance with its aims and methods, let alone the actual stock of useful mathematical ideas to be acquired by him. The sense of order, law, symmetry and rhythm, which are emphasised at every step in mathematics, in a mathematical curve, formula, or argument, should be allowed to soak into the mind of the young pupil so that he may subconsciously develop a taste and feeling for the fit and the beautiful based on his appreciation of law and order. The following words of Plato deserve to be writ large in letters of gold—"Music and pure mathematics can by their rhythm and harmony fill the soul with beauty and make it a fount and source of pure and well-balanced thought and ideals."

A. A. KRISHNASWAMI AYYANGAR.

1 The Vice Chancellor of the Mysore University, recognising the cultural principle in mathematics, has included it among the humanitarian subjects taught in the Maharaja's College, Mysore. The Mysore University Ordinance 63 permits the candidates for the B.A. degree to attend courses of study in any two of the following subjects:—History, Economics, Philosophy, Sanskrit, Persian and Mathematics.

REVIEWS.

Christianity and the Religions of the World. By ALBERT SCHWEITZER, Dr. Theol, Dr. Med., Dr. Phil. Translated by JOHANNA POWERS, with a Foreword by NATHANIEL MICKLEM, M.A. Allen and Unwin. 5s. 6d. net.

THE book under review contains the substance of two lectures delivered by Dr. Schweitzer at the Selly Oak Colleges, Birmingham. Nobody can hope to write on comparative religion and yet get the applause of all. Dr. Schweitzer is no exception to the rule. Most of his statements are likely to be violently attacked from different quarters. But this apart, there is no doubt that the little book is full of most suggestive and stimulating thought. The author is a missionary and his excess of zeal as a Christian thus becomes excusable. Not so the somewhat too sweeping generalisations he makes about other religions. The gist of the book may be expressed in a few sentences of the author himself. "Every rational faith has to choose between two things: either to be an ethical religion or to be a religion that explains the world. We Christians choose the former, as that which is of higher value. We turn away from the logical, self-contained religion. . . . We hold to the absolutely and profoundly ethical religion as the one thing needful, though philosophy may go to rack and ruin. That which appears to be *naivete* in Christianity is in reality its profundity." And again—"compared with the logical religions of the east the gospel of the Jews is illogical." Indeed the author never tires of criticising Brahmanism and Buddhism as poverty-stricken religions, although he never tires of emphasising their strictly logical character. It is clear that Dr. Schweitzer does not value philosophy or consistency, and yet without consistency how is it possible to have any *rational* faith; and if Christianity has any claim to be rational, how can it pretend to be superlogical? And yet if he claims Christianity to be "the most profound philosophy," on what is this philosophy based? Only on the intuition of Dr. Schweitzer! But perhaps the intuition of another individual points him away from Christianity and then how is the dispute to be settled? Logic and reason have been banished out of court. What remains then? Here is the intellectual bankruptcy of the author's position in his own words: "The God who is known through philosophy and the God whom I experience as ethical will do not coincide. They are one; but how they are one, I do not understand." If one cannot

understand, how can one believe? Surely philosophy and religion are not eternally ranged on hostile sides. The need of the hour is to bring them together and this is not to be achieved by the self-opinionated *ipse-dixit*s of individual men.

It is usual to regard Christianity as monistic, but Dr. Schweitzer does not hesitate to describe it as dualistic, a position which is likely to bring him into conflict with the forces of orthodox Christianity.

We repeat again that however doubtful many of his statements are, the book as a whole is very fresh and full of suggestive thought.

A. R. W.

* * * * *

Pure Thought and the Riddle of the Universe. By FRANCIS SEDLAK.

Allen and Unwin. 18s.

THE book under review is of a very novel type, touching the heights of metaphysics and mathematics alike. To say it is not meant for the ordinary reader is not to detract from its worth, for it is the usual fate of many a scholarly work. The author is a thorough and a convinced Hegelian, and it was when he was translating Hegel's *Logic* that it struck him that it would be better to give a free paraphrase of Hegel's meaning. "To cease to adhere to the literal context of the original, means to do the work over again; and in that case the original author must not be held responsible for a possible deviation from his own meaning. So comes it that my primary intention of simply paraphrasing Hegel's great *Logic* converted itself finally into the present work." There can be no doubt that the author has made a conscientious attempt to paraphrase a difficult philosopher and this with a conspicuous success. But the author's attempt to interpret Hegel's thought in terms of mathematics adds immensely to the difficulty of his task. The main thesis of the book is to distinguish pure thinking with its continuity with itself from "what ordinarily passes for thinking" or loose thinking. This idea is not new, but its treatment is fresh and novel.

Y.

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Legends and Romances of Spain. By LEWIS SPENCE, F.R.A.I., with illustrations by OTWAY McCANNEL. Harrap, London: P. T. I. Agency, Bangalore. 21s. net. Antique Leather 30s. net.

To us in India the history and literature of Spain appeal more strongly than do those of any other Western European country, and this for two important reasons among others. The vicissitudes of Spanish

history have been as diverse as those of the history of India: both countries have known long and bloody religious controversies and the complexities of parochial kingdoms were as prominent in the India as in the Spain of the past. The environment in Spain—geographical, scenic, temperamental—is well-nigh as tropical as the Indian. And while one reads through the fascinating pages of Lewis Spence one is struck by the close similarity between our traditions and those recounted by the author.

That the legends and myths, romances and lyrics of Spain are as attractive to Europe itself as to us here is put forcibly by the author himself in the following words:—"In no European country did the seeds of Romance take root so readily or blossom so speedily and luxuriantly as in Spain, which perhaps left the imprint of its national character more deeply upon the literature of chivalry than did France or England. When we think of chivalry, do we not think first of Spain, of her age-long struggle against the pagan invaders of Europe, her sensitiveness to all that concerned personal and national honour, of the names of the Cid Campeador, Gayferos, and Gonzalvo de Cordova, gigantic shadows in harness, a pantheon of heroes, which the martial legends of few lands can equal and none surpass? The epic of our British Arthur, the French *chansons de gestes*, are indebted almost as much to folklore as to the imagination of the singers who first gave them literary shape. But in the romances of Spain we find that folklore plays an inconsiderable part, and that her chivalric fictions are either the off-spring of historic happenings or of that brilliant and glowing imagination which illuminates the whole expanse of Peninsular literature."

The influence of Spanish literature seems to have been so powerful on Lewis Spence that his own writings can safely be included among the literary treasures of Spain, so vivid is his imagination, so poetic his design, so rich his colour. Look at his Spanish splendour:—

"If, spent with journeying, a stranger should seat himself in some garden in old Granada, and from beneath a tenting of citron and mulberry leaves open his ears to the melody of the waters of the City of Pomegranates and his spirit to the sorcery of its atmosphere, he will gladly believe that in the days when its colours were less mellow and its delicious air perhaps less reposeful the harps of its poets were the looms upon which the webs of romance were woven. Almost instinctively he will form the impression that the Spaniard, having regained this paradise after centuries of exile, and stirred by the enchanted echoes of Moorish music which still lingered there, was roused into passionate song in praise of those heroes of his race who had warred so ceaselessly and sacrificed so much to redeem it. But if he should climb the Sierra del Sol and pass through the enchanted chambers of the Alhambra as a child passes through the

courts of dream, he will say in his heart that the men who builded these rooms from the rainbow and painted these walls from the palette of the sunset raised also the invisible but not less gorgeous palace of Spanish Romance.

"Or if one, walking in the carven shadows of Cordova, think on the mosque Maqsura, whose doors of Andalusian brass opened to generations of poets and astrologers, or on the palace of Azzahra, built of rose and sea-coloured marbles rifled from the Byzantine churches of Ifrikia, will he not believe that in this city of shattered splendours and irretrievable spells the passion-flower of Romance burst forth full-blown?"

In the thirteen brilliantly written chapters, with the help of the sixteen illustrations of Otway McCannel which rival the language in expression of local colour, Lewis Spence discusses the source of the Spanish Romance, narrates with all the force of the original teller the stories of Roderic and Cava, of Fernando and Musa, of Ahmed and of Quixote and a large number of their kind. The story of "Princes who changed crowns" is very interesting because the Christian and Moorish Princes, Fernando and Musa, are made to give their impressions each of the other's civilisation after a direct experience of one year.

The glory of Spain is the author's inspiration. "We have trodden the ways of Spanish story, sublime, mock-heroic, and humorous. Perhaps no chapter in the world's literature is so rich in colour, or displays such a variety of mood and sentiment. Still the key-note is one of noble and dignified beauty, of chivalrous distinction, of exquisite propriety, courteous, immaculate, and unspotted by vulgarity of sordid meanness. The wine-cup of Spanish romance is filled with the heart's blood of a nation august, knightly, imaginative, a people who have preferred ideals to gross realities, and the heights of national aristocracy to the deserts of false democracy. "Poor Spain!" How often does the Anglo-Saxon utter the phrase in complacent self-assurance? With the solace of such a treasure-house of poetic and romantic wealth as she possesses, Spain may well rest in assured hope of the return of the brave days in praise of which her trovadores struck the lyre and her poets sang in stately epic. Poor Spain! Nay, golden Spain—enchanted cavern, glowing with the spell of song, the rainbow treasure of legend, and the gem-like radiance of immortal romance;

Her citizens, imperial spirits,
Rule the present from the past,
On all this world of men inherits
Their seal is set.

Lewis Spence pleads for the cultivation of the Castilian tongue by the reader so that the latter may enjoy the riches of Spanish literary

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treasures first-hand. But much of the benefit which the author promises to those who will learn the Castilian language seems to be available, to Indian readers at any rate, in his own book.

S. K. I.

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An Intermediate Course in Modern English. By C. J. BROWN M.A., and H. S. WALKER, M.A., MacMillan, 3s. 6d.

THIS book contains twenty-nine short extracts from modern literature (roughly that of the nineteenth century). They are exceedingly varied both in subject and in style. There are seven sections: education, language, literature, science, biography, autobiography, history and travel; the literary essay, humour, oratory, parable and allegory. Translations from Thucydides, Tolstoy, Dostoyevsky and Tagore are included. Every passage is real literature, and each is sufficiently self-contained and is in the highest *interesting*. It would be difficult to place in the hands of an intermediate student a book which he would like more. It is also of the greatest educational value, both from the literary point of view and from that of training in the understanding and use of the language. The intermediate student must, of course, study more English prose than is given in this book: even he must acquire some idea of the complete development of a work of literary art. But we believe that every intermediate course in the country would be bettered by the inclusion of this book. It contains no verse, and this exclusion, we think, is wise. The book is now of the right size, and the preferences of text-prescribers vary more as to verse than as to prose. The notes at the end of each extract are good, sufficient, not too voluminous.

J. C. R.

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Happy Days in Healthy Ways. A health story reader. By E. MARSDEN, B.A., F.R.S.L., F.R.HIST.S. and HILDA JOHNSTONE, M.A., F.R.HIST.S. MacMillan 2s. 6d.

IT is always doubtful whether children really like their medicine in jam. Dim recollections from distant childhood seem to say that one rather despised the method as an ineffective grown-up deceit. On the other hand the jam certainly makes the medicine less nauseous. This book, meant to teach children such dull things as the laws of health, is sufficiently interesting to keep them alert even at the drowsy time of afternoon. In fact it might usefully provide the happy ending of a tiring school day.

* It is full of information about practical hygiene and how we come

to know about it, told in a story that goes on and on in the way that children love but with a method and a wealth of knowledge that can come only from experience and training. It is addressed to English children but it contains nothing foreign to children of any country, and is entirely to be recommended.

G. M. R.

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The properties of Matter. By BASIL C. MC EWEN, M.C., B.Sc.
Longmans 10s. 6d.

THE book is a welcome addition to the text books available to students of physics. It brings together the various facts generally distributed in books on Heat and Properties of Matter. The way in which the kinetic theory is utilised to deduce the properties of gases could be easily followed by students with a moderate knowledge of mathematics. Welcome attention is paid to deductions from the theory of osmotic pressure.

The descriptive portions are carefully selected, and make the book a compact mass of precise information both of theory and experiment. It would have added to the usefulness of the book if a little more space had been devoted to gravity and gravitation.

A. V.

COLLEGE NOTES.

Maharaja's College.

THE UNIVERSITY UNION, MYSORE.—From the 12th August 1923 there have been 15 meetings of the University Union, excluding those at which the annual elocution competitions took place. Two of these meetings were occupied with purely business matters concerning the Union, while the rest were devoted to debates, lectures and a reading circle. Here are some of the subjects discussed:—

- (i) The truths of poetry are higher than those of history.
- (ii) The League of Nations is an impracticable ideal.
- (iii) Newman's idea of a university.
- (iv) National education is desirable in the interests of India.

On the 23rd of September, during the Dasara holidays, a special meeting was convened, as a few of the distinguished officers of the State expressed a desire to listen to a Union debate. The subject for discussion was:—That in the opinion of this House Economics is a more potent factor in life than Ethics. *Mushir-ul-mulk* Mr. Mir Humza Hussain, Member of the Executive Council, and Mr. M. Shama Rao, retired Inspector-General of Education, were among the audience. Prof. P. Seshadri of the Benares Hindu University, who was also present, took part in the debate.

On the 3rd of November the House was full to bursting when our beloved Prof. J. C. Rollo, who had just returned from a six months' stay in Great Britain, addressed the members of the Union. Prof. Rollo gave a very graphic and humorous description of his voyage to and from England, and promised to speak on another occasion about his experiences during his short sojourn there.

Special mention must be made of the Inter-collegiate Debate which was held on the 1st of December, when two representatives from the Central College, and two from the Engineering College, Bangalore, came over to Mysore to participate in the discussion of the subject:—

It is time for India to mobilise her resources in a rapid process of industrialisation.

Of particular interest was the debate held on the 12th of January as it was conducted throughout in Kanarese.

During the current month, as it is a very busy period for the student members of the Union, only lectures have supported this side of our

activity. Mr. C. R. Narasimha Sastry, Lecturer in Sanskrit, Maharaja's College, gave an account of Sanskrit lyric poetry; Dr. M. V. Gopala-samy, Professor of Psychology, Maharaja's College, spoke about "A foot-rule for the mind"; and the Rev. E. Stanley Edwards of the Wesleyan Mission, Mysore, delivered a lecture, assisted with lantern slides, on the Hoysala temples of Mysore. The Union feels thankful to these gentlemen for so kindly and heartily responding to its call.

In the course of the year also were held the annual elocution competitions both in English and in Kanarese; and prizes were distributed to the best reciters of prose and poetry and to the best impromptu speakers. In this connection it is difficult to express adequate gratitude to our venerable Vice-Chancellor and to our beloved Principal, who, by their munificents and liberal encouragement, so largely contributed towards the success of the competitions.

On the 6th of December, at an extraordinary meeting of the General Body, a special sub-committee of 9 members was appointed to scrutinise the rules and regulations of the Union with a view to suggesting modifications. The sub-committee continued its sittings through the last two and a half months, and has sent in the report of its deliberations just now. The report will be placed before the Managing Committee and the General Body for approval, and will then be submitted to the University Council in due course of time.

Two things must now be mentioned as happy auguries for the Union. After a cessation of two years the Union dramatic activities were resumed with the staging of scenes from *Faust*, *Henry IV* (Falstaff) and *The Pickwick Papers* (Bardell vs. Pickwick). We had a crowded audience, and the acting was superb and produced a wonderful effect. Secondly, a sum of Rs. 150 has been apportioned for the replenishing of the Union Library with fiction and light literature, and already 50 books have been purchased.

We have only two items on the programme yet to be realised: the debate by the members of the college teaching staff, a yearly function, and the annual social gathering.

THE UNION, }
22-2-24. }

S. V. RANGANNA,
Hon. Secretary.

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THE UNION DRAMATIC PERFORMANCE.—A lively, varied and very successful dramatic entertainment was given on December 15th in the College Hall, under the auspices of the Union. Act II, Scene 4 of the first part of *King Henry IV*, two scenes from Goethe's *Faust*, and a dramatisation of "Bardell vs. Pickwick" in *The Pickwick Papers*.

were rendered by student actors, under the tuition of Professor Wadia, the President of the Union. One advantage of this choice of scenes was that parts could be found for a large number of students. Evidently there is much dramatic talent and enthusiasm in the College, and the actors, like the audience, enjoyed themselves thoroughly. The enthusiasm, however, is always sadly intermittent as regards rehearsals, and we heartily congratulate Mr. Wadia upon managing to train so thoroughly such a large body of actors. Great care in training and in stage management was evident throughout. Both gaps and dragging were avoided, and the actors put life into their work. It would make too long a list were we to commend by name all those who deserve it. It would be difficult to beat K. Krishnaswami Iyengar as Falstaff, and he was excellent as Pickwick also. R. J. Rego was a most admirable Mephistopheles, right in everything—in look, in bearing and in speech; and as Sam Weller he was, in the opinion of many, the great success of the *Pickwick* scene. The part of Prince Hal was excellently acted by R. Arunachalam. He laughed too much: Prince Hal is both too solid and too humorous a person to be for ever sniggering. But his performance was a very lively and pleasing one, and he *looked* his part exactly. B. V. Seshagiri Rao provided another example of Mr. Wadia's care and sureness of judgment in casting: his Poins was one of the most natural pieces of acting in the programme. We have other excellent performances in mind, but space precludes the mention of them. D. Chandrasekhariah, however, must be mentioned, for probably he is second to none on the list in promise. On this occasion he was handicapped by his part. The performance of the *Faust* scene was an experiment well worth making, and probably justified itself also in the study induced in the actors. But this scene was by no means so successful as the others, and evidently is not suited—with its long speeches and its elaborate profundities—for acting. And who is there that could do justice, on the stage, to Faust's nature and experience? Chandrasekhariah made the fatal mistake of representing him rather as a wriggling worm than as a man erring and perishing through excess and misdirection of power. A fault which this actor shares with many persons prominent on the English stage is that of speaking verse as if it were prose. Not only does this sacrifice the special excellence of verse: it banishes rhythm altogether, for verse has not the rhythms of prose and when it has lost its own rhythms it becomes a weary business. It is astonishing how eminent English actors fail to realise this: the "Old Vic." in London is perhaps the only theatre in England where one may be sure of hearing Shakespearean verse, for example, satisfactorily spoken. We look forward to great performances on the part of D. Chandra-

sekhariah, who among his other gifts possesses a splendid voice. On this occasion it was muffled by Faust's beard and also by his conception of Faust, but one looks forward to the next time of hearing.

J. C. R.

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MYSORE UNIVERSITY UNION CO-OPERATIVE SOCIETY, LTD.—The annual general meeting of the shareholders was held in the Union on Friday, January 25th, with Professor J. C. Rollo, the President of the Society, in the Chair. The following passages are extracted from the annual report (1923-24) presented by the Hon. Secretaries, Messrs. S. Venkateshiya and W. D. Pichamuttu:—

“The year commenced with 672 shares of rupee 1 each (fully paid up), to which an addition of 152 was made as against 124 of last year, making a total of 824 shares. There were 79 withdrawals, on the part of students who left college. This leaves a balance of Rs. 745 to the credit of our Capital Account. Thus we have been able to secure nearly 75 per cent of our authorised capital. On the 1st of January 1923 there were 327 members, and this year 75 members joined the Society. The total membership is now 355.

“When we took charge of the office there was an opening stock of Rs. 1,125-5-8 (valued at cost) as against Rs. 860-2-3 of the previous year. A very considerable portion was either dead stock or not in demand. Almost all available cash was locked up in books and gowns, and we had to commence with the very small cash balance of Rs. 99-6-3. It therefore required very careful purchasing and energetic promotion of sales to keep the concern going and make a profit.

“In May we secured a loan of Rs. 300 at 6½ per cent from the Registrar of Co-operative Societies in Mysore, and this helped us with our business in July.

“The purchases for the year came to Rs. 2469-13-9 as against Rs. 2,675-1-9 of last year. The sales reached Rs. 2,832-9-4 as against Rs. 2,616-4-2 of last year. We have been able to reduce the stock by about 14 per cent.

“Our most lucrative business is the supplying of academical robes to our new graduates. In these robes we invested last year Rs. 538-8-3. The demand having increased this year, we had to order additional gowns and hoods, investing in these a sum of Rs. 210-10-9, which brought the total expenditure up to date on this business to Rs. 749-3. Within the two years the depreciation of gowns and hoods has amounted to Rs. 152-8-9. The lending of them has brought us Rs. 168 last year and

Rs. 246-8 this year. From this business alone the Society is likely to gain an average net income of Rs. 250 per annum.

"From this year we have introduced the system of allowing a cash discount of 6 pies per rupee on the purchases made by members.

"The Managing Committee recommend that the net profit of the year (Rs. 177-12-4, nearly 24 per cent on our paid up capital) be appropriated in the following manner. As per bye-laws, 25 per cent (Rs. 44-7-1) of the net income should be set apart towards the Reserve Fund. A dividend of 6½ per cent may be declared on 742 shares, which amounts to Rs. 46-9-0, and 5 per cent depreciation on the present stock has also been recommended."

A vote of thanks to the retiring office-bearers was passed, the members expressing special gratitude to Mr. S. Venkateshiya, the retiring Secretary. The following office-bearers were elected for the coming year:—

President	Mr. J. C. Rollo, M.A.
Vice-President	„ „ H. V. Srikantiah, B.A., LL.B., B.COM.
Student Vice-President	„ „ L. Thimmiah.
Hon. Secretaries	„ „ William D. Pichamuttu. „ „ B. S. Dodsankarappa.
Treasurer	„ „ P. S. Dattu Rao, B.COM.
Committee	„ „ N. Narasimha Moorty, M.A., B.L. „ „ S. V. Ranganna, M.A. „ „ S. Gopalaswamy, M.A. „ „ Reginald J. Rego. „ „ N. S. Hiranniah. „ „ A. Narayana Rao. „ „ Muthaji Rao Scindia.
Auditors	„ „ M. L. Shama Rao, B.COM. „ „ H. S. Bhimasena Rao.

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Central College.

THE DRAMATIC SOCIETY.—The society has had a successful year. During the session four lectures were delivered and were very well attended and appreciated. Three of these lectures were on music. Mr. Usher, B.Sc., dealt with *Western Music* with examples; Mr. H. P. Krishna Rao, B.A., discoursed, with illustrations, on *The Psychology of Music*; and Mr. J. A. Yates, M.A., talked on *Some Aspects of Telugu Music* with vocal and instrumental examples. All these lectures were

instructive and interesting even for those without previous musical knowledge. The remaining lecture was delivered by Sri Kanakalakshmi, M.A., on *Hardy's Philosophy of Life*. The hall was crowded out, and this learned paper was listened to with great interest.

The society staged Tagore's *Sacrifice* in Mysore at the time of the University Convocation and repeated the play in Bangalore as a benefit performance in aid of the College Karnataka Sangha. A sum of eighty rupees was handed over to the Sangha, whose extremely useful work is appreciated by all lovers of Kannada. The society was obliged to give up the idea of playing *Hamlet* after it had been under rehearsal for some weeks. It was felt to be too big an undertaking. The Bangalore Amateur Dramatic Association, to which many of the members of the college society belong, undertook to stage that drama in March, for the benefit of the third year students.

The officers of the society for the year were Mr. F. R. Sell, President; Messrs. B. Venkatesachar, M. G. Srinivasa Rao, and P. S. Annaji Rao, Vice-Presidents; Messrs. B. L. Srihari and B. S. Rama Rao as Secretary and Conductor, respectively; Messrs. V. Krishnamurti, B. R. Narasimhengar, K. Krishnamurti, and D. V. Rama Rao, Members of Committee.

F. R. S

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Engineering College.

THE CO-OPERATIVE SOCIETY.—The following passages are extracted from the annual report for 1922-23, presented to the members by the Hon. Secretary, Mr. M. N. Ramakrishniah.

The society was registered under the Co-operative Societies Regulation of Mysore on 24th October 1921, and it is about to complete the second year of its existence. There were only 99 members on the 30th June 1923, excluding those, four in number, who ceased to be members after leaving the College, and those, eight in number, who forfeited their membership for non-payment of share calls. The admissions during the year are by no means encouraging, but it is highly gratifying to note that almost all the members who have left the College after completing their course still continue their membership. During the year under review the volume of business transacted by the society increased very considerably, and it was therefore found necessary to equip the society with furniture to the value of about Rs. 70. Owing to the fluctuation of market rates the society incurred some losses, notwithstanding which the

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working on the whole is satisfactory, as indicated by the balance sheet. The net profit for the year is Rs. 226-2-3. and deducting Rs. 56-8-0 for Reserve Fund a balance of Rs. 169-10-3 remains over to be spent in accordance with the decision of the general body.

"The capital realised from the subscriptions of the members being somewhat inadequate, the society made a request to the Registrar of Co-operative Societies in Mysore to grant a loan of Rs. 500 for one year, which was kindly acceeded to. The loan had to be returned on 3rd July 1923, and since the return of the same was considered to affect the business of the society very adversely, a further request was made to the Registrar to extend the period by another year. The society takes this opportunity of expressing its heartfelt thanks to the Registrar."

K. D. J.

CONFERENCE ON EXTRA-MURAL TEACHING HELD IN
CAMBRIDGE, JULY 6—9, 1923.

(1) REPORT OF THE CONFERENCE.

THE conference was held in connection with the Jubilee Celebration of the Cambridge University Local Lectures. It was attended by representatives of universities in all parts of the British Empire and America, and of many local centres and local educational authorities in England. The kindest hospitality was shown. Delegates who were unmarried or were unaccompanied by their wives were accommodated in the colleges,—a very great privilege, especially to those who had never been in residence at Cambridge or Oxford. On the evening of the 6th, the Master of Trinity was "At Home" to all delegates, at the Master's Lodge, while on the 9th they were similarly entertained by the Vice-Chancellor, at Corpus. On Sunday, July 8th, they attended the University Church (Great St. Mary's Church), where the Very Reverend the Dean of Worcester preached a sermon before the University. The evenings and Sunday were free, and thus delegates were able to see a great deal of Cambridge and its colleges.

Proceedings were opened with a Congregation for Honorary Degrees, at 5 p.m. on July 6, at which the degree of Doctor of Law was conferred upon Sir Michael Sadler, Professor R. G. Moulton and Mr. Albert Mansbridge (Founder of the Workers' Educational Association and Chairman of the World Association for Adult Education), and the honorary degree of M.A. upon three others, including Mr. Alfred Cobham, an artisan who had greatly distinguished himself in the studies fostered by the local lectures and had devoted himself to the development of this work. The programme of the conference comprised five meetings:—

<i>Time</i>	<i>Subject</i>	<i>Chairman</i>
July 6, 5 P.M.	... Welcome to delegates, and replies from representatives of the United States, the Dominions, Oxford and Scotland.	The Rev. Dr. Pearce, Vice-Chancellor.
July 7, 10-30 A.M.	... The relations between extra-mural and intra-mural teaching.	The Vice-Chancellor.
July 7, 2-45 P.M.	... Extra-mural teaching and local education authorities.	The Vice-Chancellor.

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<i>Time</i>	<i>Subject</i>	<i>Chairman</i>
July 9, 10-30 A.M. . .	Extra-mural teaching and the student.	The Rev. Dr. Parry.
July 9, 2-45 P.M. . .	Extra-mural teaching and the general audience.	The President of Queen's College.

These subjects are so closely related that there was a good deal of over-lapping, but it seems convenient to note the chief points made at each sitting and afterwards to endeavour to arrange together such of the ideas as are related to possible work under the auspices of Mysore University.

The Opening Meeting.

Bishop G. F. Browne (an early Secretary of the Cambridge Local Lectures Syndicate, and one of the most notable workers in its cause) referred briefly to the earliest stages of the work, to which were to be traced the establishment of the women's colleges, Newnham and Girton, and of university colleges at Nottingham and other centres; and he remarked that in extending its activities to reach the people the university had learnt as much from them as it had taught them. Dr. G. E. MacLean, (President of the Iowa State University) spoke of the development of the University Extension Movement in the United States, where it was a most valuable asset to democracy. Dr. William Caldwell (of McGill University, Montreal) spoke of the usefulness of this work in interpreting and confirming the British tradition throughout the Empire. Sir Michael Sadler (representing Oxford), in a particularly finished and inspiring speech, dwelt upon the many results, in a small Yorkshire town, of the work of the lecturers sent by Cambridge. They made a lasting impression. They aroused new interests, and gave a sense of standards and of criticism; and their students realised, with gratitude, that behind the lecturers stood Cambridge University, a personal force desirous of helping them. Sir Donald Mac-Alister (Principal and Vice-Chancellor of Glasgow University) spoke of the work and influence of James Stuart, the founder of the movement, and re-emphasised the fact that the impulse given by him eventually brought into being "not only the universities which now adorn the cities of Manchester, Sheffield, Liverpool and Leeds, not only the university colleges like Nottingham, Reading and Exeter, but all the far-reaching organisation for higher education of women in this and other lands."

The Relation between Extra-Mural and Intra-Mural Teaching.

There is frequently more inspiration in the reserve and conciseness of the scholar than in the floweriest eloquence, and the paper with which Professor Seward, the Master of Downing College, opened this discussion

was perhaps the most typically "Cambridge" utterance at the conference. He emphasised the usefulness to a lecturer of contact with an extension audience. It trained him as lecturer, and caused him to realise the limits of his knowledge; and it was more responsive, readier to ask questions and acknowledge and discuss difficulties, and less anxious to curb an exhibition of enthusiasm, than a university audience. In appointing a man for lecturing in a university no-one dreamt of asking whether he could lecture: a trial before a select body of extension lecturers would be no bad scheme.

Dr. Albert Mansbridge remarked that the extra-mural student was more mature than the university student, better acquainted with the hard facts of life, more eager for knowledge, and, as a rule, sought knowledge directly related to the problems of life, preferring, for example, a study of economics.

Mr. G. T. Ferguson (Headmaster of the Bede Collegiate School, Sunderland) raised the most important question discussed at this sitting—the question whether *degrees* should be granted by Cambridge University in recognition of satisfactory external studies. He considered that the institution of such degrees was desirable in the interests of those students (teachers, for example) who wished to increase their academic credentials, for to these the certificates now granted were of little use. London University gave such degrees, and that without providing tuition as Cambridge did; and Cambridge already granted degrees in music without residence. Cambridge might surely grant degrees to the students whom it had taught and examined. No harm would be done, for the degrees obtained in residence would retain an acknowledged superiority. (In the subsequent discussion, Dr. MacLean vigorously opposed this idea, referring to the abuse of the external degree system in America.)

Professor G. H. Leonard (Bristol University) pointed out that in the early days of the movement the extension lecturer actually lived for a time in the scene of his labours. He was, as it were, a missionary, away from his spiritual home; and he cultivated intimacy with his students. Professor Leonard urged the desirability of arranging lectures and meetings in the university for extra-mural students, and he instanced the efforts of Bristol University in this direction.

Dr. Caldwell (McGill University, Montreal) re-emphasised the Empire point of view, and spoke of the importance of bringing into mutual relation the intellectual and the industrial spheres of life.

Extra-Mural Teaching and Local Education Authorities.

This discussion may be very briefly referred to since in Mysore there are no *local* education authorities, and since both the University

and the education authority (the Inspector-General of Education) are under the direction of Government. The gist of the discussion was that the education authorities should co-operate with the voluntary efforts of the universities, and should finance the work to a considerable extent while also assisting in its direction. Representatives of local education authorities agreed as to their responsibility in the matter, while pointing out that other needs also were clamant, such as that for technical education and that for continuation schools for children who left school at the age of fourteen. The university extension movement must needs confine itself to the towns, and the villages also needed help in the fostering of culture, and some of them already had such agencies as play-reading groups and folk-dancing groups. It must be remembered (said Mr. W. A. Brockington, Director of Education to the Leicester County Council) that "education is not so much reading and writing and book learning, but throughout the whole of life it is the continuous enrichment of personality and human experience." (Here was a useful reminder of the inevitable limitations of work fostered by universities, and of the limits of its claim upon public resources.) It was pointed out, also, that organisation should be controlled not merely by representatives of universities and official education authorities but also by voluntary local committees. It was slyly hinted that local education authorities were sometimes rather strangely composed. Mr. J. H. Fisher (Secretary of the Portsmouth Centre and of the Southern Counties' District for the Local Lectures) remarked,—"It would be a splendid achievement for this country if a scheme of extra-mural teaching could be arranged for members of local education authorities at which attendance should be compulsory. I have heard of a member of an authority who, in conversation with an Art master, asked him why he had not obtained the degree of Master of Arts."

Extra-Mural Teaching and the Student.

The "student" in this connection is one who seeks a continuous course of instruction and study, and for this purpose attends tutorial classes organised by a university or by some correlated association such as the Workers' Educational Association. Mr. J. M. MacTavish (Secretary of that association) emphasised the needs of the many who, not particularly desiring knowledge for its own sake, desired to study social, economic and administrative problems with intent to become better citizens. These students, he thought, were the great opportunity of extra-mural teaching. The first thing was to win their confidence, and therefore the organising body must be a working-class body, like the Workers' Educational Association. This Association was equally repre-

sented with the universities on the joint committees organising tutorial classes. Tutors must be able to identify themselves with the interests of their students without losing academic authority and method. No tutor was appointed by these committees without the approval of the class, and within the class complete freedom of thought and the expression of the students' own views were not only permitted but encouraged. Mr. Alfred Cobham vehemently disagreed as to the prime aim of the movement. Its task, he considered, was less to impart practical knowledge of any kind than "to extend the horizon of life for those whose immediate sphere was the office, the store, or the workshop. The first matter in a larger life is to become aware of the kingdoms of knowledge and to experience a quickening of the spirit in the response to fresh visions." (This view had peculiar weight as coming from a working man who had benefited in an almost unique degree by the tutorial classes.) Professor R. G. Moulton said that adult education was for many people not a training for professional work but a provision for wider and higher enjoyment in hours of leisure. Mr. P. L. Babington (Lecturer to the Local Lectures Syndicate) also deprecated the utilitarian idea. The tutorial classes were especially suited for assisting the intellectual progress of those who had not the advantages of secondary education, and the value of education in itself must not be obscured by commercial considerations. The work "aims at assisting to enrich the mind, not to fill the pocket. The results of true education must be measured, only by the improvement in the taste and character, not by any increase in the salary of the student." He thought it desirable that extension lecturers should also do tutorial class work. They could then emphasise the important points dealt with in the lecture, and meet the special difficulties of students. The Master of Balliol College, Oxford, said that they should never be content until the movement produced its own teachers, from the rank and file. Mr. J. L. Cohen, supporting Mr. MacTavish against Mr. Cobham and others, declared that the desire of the working classes to study economics for practical ends should be welcomed.

At this meeting opportunity was taken to congratulate The Rev. Dr. D. H. S. Cranage, Secretary to the Local Lectures Syndicate, upon his devoted and successful work ; and in replying Dr. Cranage said that the extension work had reacted favourably upon the intra mural work of the University. In many of its courses the University had adopted methods suggested by experience in extension work. Students for the ordinary degree had to take an additional subject in which they were not examined. He hoped that in time even the work of honour students might thus be broadened. It was very valuable to a student to be made to take subjects beyond the sphere of his special studies.

Extra-Mural Teaching and the General Audience.

Mr. Alfred Holmes (President of the Local Centres Union) thought that extension lectures for the general audience was even more important than tutorial classes for systematic students. Many people sought an enlargement of outlook, and welcomed such intellectual interests as were introduced by these lectures; and one result was the resolve to give their children the best education possible. He noted the desirability of co-operating with such local associations as literary and philosophical societies. Mrs. Chanter, Secretary of the Braunton Centre in North Devon, gave interesting details of the work there. In 1922 out of an adult population of 1,400 the average attendance at evening lectures was 102, about half of these being from the leisured and professional class and the rest business and retired business men. A short, lively discussion was the best sequel to a lecture. It was found that many of the best students were not inclined to write papers. Dr. C. W. Kimmens (Chairman of the London University Extension Board) said that "the lecture habit" and a sort of "technique of listening" had to be cultivated in the public, just as readiness in interpreting cinema-pictures had been acquired. Much depended upon the liveliness and *attractiveness* of the lecture: good matter was by no means sufficient and was seldom lacking. The great difficulty lay in the diversity of types among the audience.

(2) CONCLUSIONS, WITH REFERENCE TO MYSORE¹

Conditions in Mysore differ in many respects from those which are met by university extension work in England, but many of the ideas which emerge from these discussions are applicable to our affairs and may be dwelt upon.

Both lectures and classes are provided at English centres. The course of lectures, even the single lecture, is of considerable value to people who cannot or will not study, and they are the majority. Facts, ideas, and standards both intellectual and ethical may by this means be communicated to the man in the street. But the more peculiar business of a movement initiated by a *university* is the helping of those who are essentially students but lack university opportunities. This can be done through the tutorial class, which (within however limited a sphere) leads to that mastery of a subject which alone can satisfy a student. His own efforts, also, are used for his development; his enquiries are stimulated and answered; he is enriched by intimate contact with men sent by the university; and the value of his work is assessed and certified by the university. Thus he acquires both education and credentials.

¹ Two books have been found useful: *University Extension 1873-1923*, by W. H. Draper, M.A., Master of the Temple; *An Adventure in Working Class Education*, by Albert Mansbridge, M.A.

In Mysore we have had, so far, nothing but lectures, and these in very brief courses, providing mere hints and fragments of knowledge. Further, while in England even lecture audiences are urged to study and to submit essays to the lecturer, sometimes even to attend regular examinations, in Mysore there has been no attempt to arouse the efforts of the audience. Perhaps those who would respond to such an attempt are few, but probably there are enough of them to make it worth while. In the professions, in clerkships and in other employments there must be some who feel that their formal education has ended too soon, who would like to continue study but do not know exactly how to set about it, and who need the stimulus of system, a teacher, and companions in study. In particular, a large proportion of the teachers of the State (who ought to be closely associated with the University but at present are totally separated from it) would be exceedingly glad of such an opportunity. They would welcome instruction in the subjects which they teach, but also in other subjects; and they would welcome an opportunity to improve their credentials. Thus in large centres it should be possible to form satisfactory tutorial classes in quite a number of subjects. They might be connected with public lectures and conducted by the same representative of the university. He would have to make either repeated visits or a stay of several weeks, being deputed from his other duties in the latter case. In England it is usual for a series of tutorial classes to last for at least a winter. In connection with the Workers' Educational Association three year courses are provided, there being 24 meetings in each year. Until the University is able to set apart men entirely for this work we cannot do this in many places, but valuable work could be done in a tutorial class which met every evening for a few weeks. In the university towns, Bangalore and Mysore, the English system could be adopted—possibly also in neighbouring towns, not too far away for weekly visits, during a considerable period, from a member of the university staff.

An example of the working of tutorial classes in England may be taken from the record of the University of Sheffield, under whose auspices in 1921-22 twenty three series of tutorial classes were conducted, presumably in the city of Sheffield. The subjects were as follows:—

Economics, in one form or another	..	10	courses.
Industrial problems, or History	..	3	"
Social and Political History	..	2	"
English Literature	..	5	"
Biology	..	1	course
Psychology	..	1	"
Local Government	..	1	"

The co-ordination of extension lecturing with tutorial classes is

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admirably exemplified in work done by The Rochdale Educational Guild (a branch of the Workers' Educational Association) in its first year. Lectures were given fortnightly, in two courses of six each, the subjects being "Six Selected Plays of Shakespeare" and "The Life and Teaching of John Ruskin". Of an average attendance of about 500 fully 200 stayed behind after each lecture to ask questions. For those who wished to study these subjects more closely *classes* were held fortnightly, and "were attended by between twenty and thirty earnest students."

Another scheme which has proved exceedingly successful in England and America is the holding of "summer meetings" in university towns under the auspices of the universities. Such meetings are held at Oxford and Cambridge in alternate years, and accommodation in the colleges is found for a number of the students. A conspicuous feature is the attendance of foreign students. The meeting lasts for several weeks: that at Cambridge in 1922, for example, was held from July 29th to August 18th. An inaugural lecture by a distinguished scholar or man of affairs is followed by special lectures and by regular courses of instruction. The students work in a university environment, and have access to the best libraries and the best instructors. In the years since the conclusion of the war the following numbers have attended:—

1919	Oxford, 812	1921	Oxford, 836
1920	Cambridge, 451	1922	Cambridge, 544

The following is a list of subjects studied in recent years:—

1900	England in the XIXth Century.
1901	The Making of England, to A.D. 1215.
1902	Chief States and their relation to the British Empire.
1903	Medieval England.
1904	The West of England in English History and Literature.
1905	Renaissance and Reformation.
1906	The XVIIIth Century.
1907	Oxford and Social Economics.
1908	Ancient Greece. Social Economics.
1909	Italy.
1910	Yorkshire History. Economics.
1911	Germany.
1912	The British Empire.
1913	France; and Social Service.
1914	Modern Life and Politics.
1915	Ancient Greece and Social Service.
1916	Russia.
1917	Problems of Reconstruction.
1918	The United States of America.

SUPPLEMENT

- 1919. The British Commonwealth.
- 1920. Spain.
- 1921. Ancient Rome.
- 1922. Medieval and Modern Italy.
- 1923. Universities.

The inaugural lectures bear reference to the subject for study.

The immediate institution of such summer meetings in Mysore and Bangalore seems easy and very desirable. Short intensive courses of study could be conducted in these centres by university professors and lecturers, many of whom, no doubt, would be willing to forego a short portion of the summer vacation in so good a cause. The Oxford and Cambridge meetings are designed largely in the interests of members of the teaching profession, and in India also it is the teachers who would most benefit both by the courses and by the association with the university. Some financial assistance would have to be given them, to cope with the expenses of travelling and residence, but this would be repaid by the widened scope of their knowledge, to say nothing of subtler benefits to themselves. The crowning advantage would be the enlargement of the influence of the University, an influence which ought to be not merely one of the most inspiring but one of the most effectively unifying forces in the State.

The weight of opinion at the Conference was in favour of educative as against utilitarian courses. Admittedly there was room for both, but in work fostered by a university the first place should be given to "education for leisure," the widening of a man's personal scope, the training of his judgment and his finer perceptions, his growth in power. Some subjects are peculiarly suited for extension work in their combination of cultural and practical value—such subjects as history (political, constitutional, social, economic) and science, each of these, of course, being treated in a fashion somewhat different from that of the university class-room.

The Conference brought out the fact that in England university extension work requires the co-operation with the universities of other bodies, and of all persons who care about such matters. The universities are closely associated with the general educational authorities on the one hand, and on the other with the various associations (national or local) which seek to promote knowledge and culture. The work is controlled by joint committees, and is far from being dominated by narrowly academic ideas. The committees, being closely related to the various classes of people to be benefited, are acquainted with their needs, and know how to meet them. The work is largely financed by the general educational authorities. Since our University and our Education Department are alike financed by Government this last point is of little account, only

suggesting that part of the cost of extension work should be met from the budget of the Education Department. The other points, however, seem as important here as in England. Hitherto we have, indeed, had an extension lectures board, but it has been insufficiently representative, nor have its non-university members, as a rule, interested themselves much in the work, and this has been natural since they could really do nothing. The system was planned by the University; and even as to details the decisions of the board have been merely recommendations to the University Council, which has done just as it liked with them besides making various arrangements without any consultation of the board.

The example of other countries suggests that in Mysore a committee should be formed representing the University, the Education Department, and the public. The University should be so satisfactorily represented upon this committee that there is no need to refer the committee's decisions to the University at all, except that at every stage both organisation and work should be carried out in close consultation with the Vice-Chancellor, whose presence at meetings of the committee is desirable even if he finds it impossible to be the chairman. Within certain financial limits the decisions of the committee should be final, as are those of similar committees in England; for such a committee will best know what is wanted and how to provide it. Effectiveness and consistency would be promoted by appointing as Director of Extension Work a member of the staff of the University (in addition, of course, to his university duties). An example of this arrangement is furnished by Bristol, where the head of the Department of Economics in the University has this year been appointed Director of Extra-Mural Studies.

It is noteworthy that the women's colleges at Cambridge developed out of the university extension movement. It may well be that in this State, and particularly in Bangalore and Mysore, extension work for women, conducted mainly by women on the staff of the University and of the Education Department, would be welcomed and would lead to the most important results. In England men and women attend the same lectures and are members of the same tutorial classes, but here if the work is to have any wide usefulness among women it will be necessary to organise separately the work among them. It is desirable even to have a separate committee, consisting largely of women.

The advantages to a university of the fullest participation in extension work are apparent from the report of the Conference, and need only be most briefly indicated here. First, the lecturers may obtain from an extension audience a stimulus, a testing and a discipline less likely to be obtained in college: their enthusiasm will be quickened, their powers of both clear and attractive exposition tested and developed, their grip of

their subjects made firmer by exposure to such questions as are asked by mature members of an extension class and by the necessity of sharing in discussions that admit few postulates. Second, experience in extension work may lead to useful modifications of university methods and courses, enlarging their scope and relating them more nearly to the needs (though not perhaps the vocational needs) of daily life. A professor with experience of extension work will wish to add to the purely academic benefits required by his college students the kind of illumination which his extension audiences have welcomed, and he will know how to do this. Courses also may be modified and extended with the same end in view. This, as was pointed out by Dr. Cranage, has happened in Cambridge; and every course in our University is narrow compared with the mental and spiritual needs of any student.

Finally it may be repeated that in such work as has been indicated the University would be fulfilling its duty to the general body of the people and to the general prosperity of the State. It would influence temper and policy, as a university should. It would be recognised as a beneficent power not aridified by purely academic traditions, and would win a public confidence which would react in more active and intelligent support even of its purely academic work.

J. C. ROLLO.

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EDITORIAL

THE CONGRESS OF UNIVERSITIES, which met in Simla early in May, was a most representative gathering, attended by prominent members of practically all the universities of India. We hope to furnish our readers with a report of the work done by this conference. Perhaps its most important act was the formation of a permanent Central Board for the discussion of university matters in India and the fostering and co-ordination of university work. This board, on which Mysore University is represented by Mr. N. S. Subba Rao, has had many tasks assigned to it— including the stimulation and guidance of scientific research, the co-ordination of curricula and examinations, and the investigation of the terms of professorial service. It is the most authoritative body that has ever tackled the problems of Indian university work, because it is composed of men who, besides being first-rate scholars and experienced teachers, have personal and detailed knowledge of conditions in different parts of India. It is likely to do very great service both to education and to learning.

* * * * *

ORDINANCES AND THE SENATE.—At the March meeting of the Senate there was not very much discussion of the budget, and no significant changes were proposed. The most interesting topic was the question of the Senate's powers in relation to the budget. It appears that our Senate cannot, like the senates of some universities, either *sanction* or *reject* budget provisions; it can merely consider and recommend. The University Council has powers independent of the Senate, and the Vice-Chancellor took occasion to correct a prevalent idea, that the Council is merely a committee of the Senate. As he pointed out, however, such a revision of the ordinances is badly needed as will define more clearly the respective duties and powers of these bodies. By the Regulation the Senate has "the entire charge of the organisation of instruction." To the Council, on the other hand, belongs "the executive government of the University including the general

superintendence and control over the constituent colleges," and this, by Ordinance 13 (a), includes the power "to determine from time to time the number of professors, assistant professors, readers, lecturers and other members of the teaching staff." The Senate, however, has always been disposed to express itself on the matter of staff—and naturally, since the size and nature of the staff must inevitably depend upon the curriculum, as fixed by the Senate. Indeed, the definite determination of staff might well be conceived as an essential part of the "organisation of instruction." In diminishing or adding to the number of professors, or in changing the distribution of professors among the subjects included in a general subject, such as history or philosophy, the Council would almost inevitably be modifying, in greater or less degree, the organisation of instruction approved by the Senate. Regulation and ordinances scarcely cohere at this point, and a revision of the ordinances, based on consideration of the powers which the Regulation really intends to be vested in the Senate, is urgently necessary.

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STUDY AND PERFORMANCE.—When a play is studied in school or college part of the study ought to be the performance of the play. It is literally true that without this no efforts of the lecturer can make it fully understood. "About as many people," says Granville Barker, "can get at Shakespeare's plays by reading them as can appreciate Beethoven's symphonies by fingering them out on the piano." This is rather a good comparison. If you try to play a symphony on the piano you can get the melodies and something of the harmonies but you cannot get the symphony, for this depends upon the mingling and contrasting tones of many kinds of instruments. The essence of the effect is its complexity. A play is similarly complex. It is to be seen as well as heard, and in both the seeing and the hearing we must be aware of many personalities and of such contrasts and interactions among them as must escape us if we do not see and hear all these persons. Thus in the lecture-room we lose the play. How much enfeebled is the wit of Beatrice if it is simply launched into air, from a college platform, by an unprepossessing "professor of English!" We want Beatrice herself—and even more do we want the presence of Benedick, to counter or be floored by her thrusts. If he is not there before us, her speeches simply do not mean the same thing. We want actors, speaking like and looking like and interacting like the persons of the play. We might seek also the effects of perfectly appropriate costume and scenery, but if many plays are to be performed we must do without these (and both Greeks and Elizabethans practically did without the latter and were by no means precisians as to the former); nor are

the effects of costume and scenery essential to the full understanding of a play.

Lamb's famous words perhaps may give us pause. "I cannot help being of opinion that the plays of Shakespeare are less calculated for performance on a stage than those of almost any other dramatist whatever. Their distinguished excellence is a reason that they should be so. There is so much in them which comes not under the province of acting, with which eye, and tone, and gesture, have nothing to do." "The practice of stage representation reduces everything to a controversy of elocution." And so on. It is true that absolute Shakespeare can never be acted—but then neither can it be read. Acting will be inadequate, and in one point and another it will be misleading. But the reader's mind will both err and falter also, and in most cases much more seriously. It is to be granted that Lamb, in pondering a Shakespeare play, would be likely to get more out of it than in any theatre whatever. But we are not Lamb: we are average people, without the vivifying power of his mind, without his swift certainty of understanding. Lamb had a theatre in his mind, wherein he almost literally heard and saw Shakespeare's persons. That it is otherwise with "the general" he himself concedes. "It is true that there is no other mode (than acting) of conveying a vast quantity of thought and feeling to a great portion of the audience, who otherwise would never earn it for themselves by reading, and the intellectual acquisition gained this way may, for aught I know, be inestimable; but I am not arguing that Hamlet should not be acted but how much Hamlet is made another thing by being acted." The admission is sufficient. That the character of Hamlet should be represented inadequately or even in some degree wrongly involves, for most people, a far less serious loss than the absence of acting. Further, the spectator is quite likely to perceive the actor's errors: he will not accept him as absolute Hamlet. A good actor will not err profoundly, and Hamlet will come to life in him. He will vivify even that Hamlet of the spectator's imagination which he does not fully represent. The actors in Shakespeare's company had human limitations also (though the less unfortunate because Shakespeare, in writing and casting, had these in mind), but Shakespeare wrote solely for performance by them. And we believe that if we place our Shakespeare dramas on the college stage, with such costuming as we can easily get and practically without scenery, with actors so young and inexperienced that we have to give them their very first tuition both in Shakespeare and in stage-craft, we shall thus convey to our students a fuller and truer idea of the significance of the plays than they could otherwise attain.

“DRAMATICS.”—This rather alarming word is the name of a course which, apparently, is to be found in most American colleges. It means training in matters dramatic and theatrical. Such a course, with a more tolerable name, would be an excellent thing in any Indian school or university. The natural instincts of the pupil should be used to the utmost in education, and perhaps there is no country in which the “dramatic” instinct is more pronounced than in India. This instinct includes many things—the mere love of imitation, delight in the bandying of speeches (on any level, from the farcical to the tragical), expressiveness in look and gesture, keen interest in types of character, in moods, in subtleties of feeling, the ability to lose oneself whether in another's acting or in a part played by oneself—and so on. One could learn something of dramatic movement and gesture from almost any trafficker in these streets. Every day comic scenes are enacted there which meet with the keen approbation of the crowds that promptly gather. Once we saw there a scene of tragic discovery and mourning, too sad to be thought of then as “dramatic,” but remaining in memory as a scene played, in all too grim reality, by humble people whose natural gesture and speech had the dignity and fitness that we associate with fine acting. Again, every class of people in this country has the faculty for being absolutely absorbed in a theatrical performance for many hours on end, forgetting food and sleep, and withal displaying an astonishing blend of acceptance of the illusion and criticism of the actors. In college the slightest touch of the dramatic in expounding history, for example, rouses keen interest and brings instant understanding—as is shown by one of the most expressive of all gestures, the wag of the head of an Indian student.

This highly developed dramatic instinct should, of course, be utilised in all instruction, but it would also be well to cultivate it systematically by means of a course of instruction and practice in dramatic and theatrical affairs. A long exposition of the advantages of a training of this kind is given in Granville Barker's book, *The Exemplary Theatre*. It is much to learn to pronounce correctly and clearly, and to speak verse in a way that reveals complete appreciation of sense and beauty. But the student would be taught also to appraise plays, and on a small scale to write them if for this he had any gift at all. He would be taught to act, and to criticise acting, and would learn something of all the intricate craft of the theatre. There could be no more valuable apprenticeship to the study of human nature on the one hand and of art on the other. A considerable proportion of our students would get more solid good out of such a course than they can get out of anything else we provide. And it is quite possible that out of such systematic study

(which would be both national and comparative) both a new theatre and a new drama would eventually be created. This is one of the many patriotic services which the university might well feel called upon to attempt.

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THE BRITISH UNIVERSITIES AND THE NATION.—The duty of a university to the state is not merely that of fostering its intellectual life. It should also exercise a powerful influence upon social, economic and political ideals and practice. This public duty is of equal importance with any purely academic duty. This idea has constantly been emphasised by our Vice-Chancellor, and it dominates his proposals for university reform. The English universities have been strangely neglectful of this part of their task. In a recent *Weekly Westminster* Professor Ramsay Muir sketches the history of this neglect. "In most progressive countries of the modern world," he writes, "universities have provided much of the stimulus and driving force for progressive political and social movements, and the more so the freer they have been from Governmental control." This has been so in Scotland. "From the Scottish universities, in the eighteenth and early nineteenth centuries, there came a body of fresh and original teaching which had a direct effect upon the movement of political thought and the course of political action in Scotland and in England. To take an example, it was a Scots Professor, Adam Smith, who founded modern economics." Further, the Scottish people, even the poorest and those in the remotest districts, revered "learning." It was the kind of power they valued most highly, and if a family contained a lad of ability they would pinch and strain for him while he himself would undergo any hardship or labour to achieve a university career. The people felt a close relationship between the university and themselves, and through the "dominies," who were university trained men, the university exercised a constant influence throughout the country. In nineteenth century Germany the universities dominated—in this case for evil—the political thought of the people. "It was the teachings of university philologists and historians which laid the foundations of that half-insane racial pride that swept the German people first to greatness and then to ruin." This was an evil influence, arising, we take it, from the dominance of the universities themselves by a particular class. But the German universities rendered true service to their people in the promotion of scientific discovery, revolutionising thought, and here they did work which in England, says Professor Ramsay Muir, "was done, in all its early stages, outside of the universities, and in face of their chill disdain." Till the last quarter of the nineteenth century "England provided the one

outstanding exception to the generalisation that universities are the source of the chief creative ideas of the modern world." At the beginning of the nineteenth century England had but two universities, while Germany had sixteen and even small Scotland had four. It was difficult to create new ones because of the prestige of the old, and Oxford and Cambridge "had been for centuries the playgrounds of a cultivated ruling aristocracy," and gave little heed to "the intellectual irrigation of the whole nation" or to "the working out of constructive and creative ideas for the development of a progressive society." The University of London, founded early in the century, was a power for good at first, but soon became a mere examining machine. But towards the close of the century two hopeful things came to pass. On the one hand, there was a complete change of atmosphere and outlook at Oxford and Cambridge. The old universities "began to conceive the notion that they had wide and varied duties to the whole community." On the other hand, university colleges were created in most of the large towns. Out of these have developed the provincial universities of England. These new universities have already proved their value, particularly in the sphere of science. But they do not yet serve the country as they should. They tend to be "mere knowledge-shops where neatly made-up packets of orthodoxy are handed over the counter and apprentices are taught the trade secrets of mechanical research." One of the most important questions of our time is whether the old universities and the new will sufficiently adapt themselves to national needs, will become "the sources of inspiration for a great constructive period." In India the demand for leadership by the universities is, if possible, still more urgent, and in all re-planning this thought above all others must be kept in mind.

A FOOT-RULE FOR THE MIND.

IN the Western Countries there is coming to a head a movement which threatens to revolutionise educational methods in the near future. The central fact about most of the recent educational endeavours is the ever growing attention that is bestowed on the individual child. The class as a teaching unit is well nigh falling into disrepute.¹ A simple and reliable method for testing the original ability of the individual child has therefore become an imperative need in educational administration. Attainment in school examinations is often no safe indicator of native intellectual capacity. Neither will our common-sense judgment of the intelligence of others round us suffice for the purpose. These common-sense judgments are very often crude and not nice enough. They are frequently based on such extraneous considerations as vivacity of expression, a prepossessing personal appearance, fluency of speech, the degree of familiarity between the examiner and the examinee, the personal idiosyncracies of the examiner. These inherent defects in the offhand method of judging people might be overcome to a great extent by the adoption of the scientific method. The use of a standardised scale of intelligence tests will make possible an appreciation of finer distinctions in ability from one child to another instead of herding them all under one colourless head 'the average child.' Just as the use of a microscope would greatly add to our power of visual analysis, a properly constructed mental foot-rule would increase immensely the value of our common-sense judgments on 'intelligence.' Also the use of such an objective standard greatly minimises the influence of the 'personal equation.' In the west there is no demand more frequently made on the psychologist by the educational authorities than that for a properly standardised scale of intelligence tests.

THE HISTORY OF MENTAL TESTING.

Mental testing had its origin like all other sciences in magic—i.e. with the phrenologists who sought to read men's minds by testing their 'bumps.' The theories of these charlatans had such a strange fascination over men's minds that it required the untiring research and the towering genius of Sir Francise Galton² to explode them.

¹ See Adams, 'Modern Developments in Education.'

² *Enquiries into the Human Faculty.*

Next the early experiments of Wundt and Spearman¹ in Germany towards the end of the last century deserve mention. They sought to obtain a measure of general ability by averaging the results of various sensory, motor, and ideational tests like touch discrimination, visual activity, pitch discrimination, judging weights, memory for numbers, completion test. They then worked out the correlations² between these simple psychological tests and the 'estimated intelligence' of the subject so examined. It is a pity however that such excellent work was not followed up by other researches much earlier than 1904 when Binet and Semon came out with their rather startling discoveries.

Binet and Semon were deputed by the Paris Council authorities to devise some simple tests which would differentiate between normal school children and the defectives who required special attention in teaching. Among the 56 tests that they chose for this purpose are simple common-sense questions,³ pictorial and linguistic absurdities, repeating numbers backwards (20 to 1), simple commands⁴, comparison of pictures involving aesthetic judgments, sentence building with three given words, comparing lifted weights, resisting suggestion, etc. This random sample is here given just to show what a wide range of material is covered. It will be noticed that there is nothing in the test material which would involve any technical information beyond what might ordinarily be expected of the Parisian children.

The chief thing about the Binet-Semon tests was that henceforth 'intelligence' was to be measured in terms of *mental age*, and not merely as so many points scored out of a maximum of say 100.

Now the ordinary school examinations (in so far as they are taken as diagnostic of general mental ability), do not make the proper allowance for difference in the ages of the pupils taking the same examination. It seems very important to make division into age groups in view of the fact that general ability is a matter of growth at least up to 15 or 16 years. Of two boys of 10 and 7 years scoring the same number of marks in a school examination (say 70%) it is obvious that the younger one is the more intelligent. But from the scoring itself (i.e. 70%), there is no indication of this difference in mental ability. Further from such a score (70%) we cannot say whether the children are of inferior, average, or

1 See Whipple 'Mental and Physical Tests.'

2 By 'correlation' is meant the degree of relation that exists between any two functions. A mathematical index of the degree of agreement between any two tendencies is termed a 'correlation coefficient.' Of this more will appear in a later paper in this Magazine.

3 Sample—What would you do if you missed the train? If it rained? etc.

4 Sample—Point out your nose. Shut the door and then place this key at the right hand corner of this table.

superior ability. For the test might be too easy and therefore allow of 70% being scored by all children of 7 or even 6. So from the fact that a child scores 70% we have no sure means of judging his ability.

Binet's work consisted mainly in getting over these difficulties. His method was very simple. First he tried to determine (in the Binet-Semon tests) the number of marks that might legitimately be expected of children at each age. This he arrived at empirically by actually giving his tests to a few thousand Paris children of all ages ranging between 3 and 15 years. When he had got a sufficient number of cases he worked out the number of points scored by 60% of the children of each age, and thereby obtained a measure of average performance. Thus if 60% of the 7 year old children scored 38 points, a child of that age scoring much below 38 could be judged 'inferior' and one scoring much above judged 'superior.' In any attempt at exact measurements a more important question would be to determine exactly *how much* inferior or superior. The points scored of themselves may not be a sure indication of this; for we do not know that the value of a given difference in marks is constant. The interval between points 38 and 45 might for instance be greatly more difficult to negotiate than that between 31 and 38.

It was again Binet's idea to calculate inferiority and superiority in terms of *mental age*. Therefore instead of asking, 'is the child of inferior or of superior ability?', he, asked, 'Is the child retarded or advanced, and by how many years?' Now the answer to such a question could be easily read off from the tables that Binet prepared—tables giving the number of points scored by 60% of the children of each age. Thus if a child of 7 years scored only 25 points, which is the proper norm for the 5 year old children, he would be judged as being 2 years retarded. Now here is something quite correct and measurable in number of years and months instead of the older uncertain classification into dull, average and clever.

But excellent as this method is, it has certain grave deficiencies when we are considering children of above 9 years or so. These defects are due to the gradual decrease in the rate of mental growth as it approaches the maximum point.

The general curve of mental growth rises very abruptly during the earlier years, and as it approaches the optimum limit its steepness decreases gradually until the curve gets almost flat when we get to 15 or 16 years. Now this fact of the variations in the rate of mental growth from age to age has a certain detracting effect on the method of expressing 'intelligence' in terms of retardation or advancement. It would appear that a retardation of 2 years for a 5 year old is not strictly comparable to a similar retardation of 2 years at 10. For it is found that children that were retarded 2 years at 5, when they are re-tested at 10 show a

retardation of 4 years. Similarly children 2 years advanced at 5, would have a 14 year mentality when they grow up to be 10 chronologically. Now this fact reveals that 'intelligence' is an inborn ability which tends to remain relatively constant and independent of schooling. Binet hit upon his idea of the 'intelligence quotient,' or the I. Q., to express this simple fact as also to avoid the anomalies that arise if ability is expressed in terms of retardation. The method of I. Q. is simply dividing the mental age by the chronological age.

$$I. Q. = \frac{M. A.}{C. A.}$$

Thus a child of 5 with 7 year mentality would have an I. Q. of $\frac{7}{5} = 1.4$. The same child when he is 10 would have 14 year mentality. Though there is now an apparent advance of 4 years, when read in terms of the I. Q., it would still be $\frac{14}{10} = 1.4$.

After this brief survey of the technique of the Binet-Semon tests, we may now consider some of their defects which later researches—notably those of Mr. Cyril Burt, the London County Council Psychology Expert—have brought out. Burt as a result of his examination of over 3,400 children in the London schools has been able to determine with notable success the extent to which the Binet-Semon tests do actually isolate the factor of 'general intelligence' from such disturbing influences as social status of the pupils, sex, scholastic information and linguistic ability. As this portion of his research is full of the mathematical applications of the theories of correlation, partial correlation and colligation of associations—names enough to frighten laymen—I shall merely quote the conclusions of Burt at the risk of appearing dogmatic. "Linguistic ability and linguistic attainments exert upon Binet-Semon tests a special and a positive influence of their own. Upon scholastic attainments and still more upon scholastic interest success in the ordeal of Binet tests seems to hang There is a preponderance of literary and verbal exercises throughout the range of Binet tests which vitiates the value of the test overmuch. At best the tests could therefore be said to be but moderately successful with normal children."

Further, Burt finds that, though the *Binet tests as a whole* (i. e. all 56 tests, covering a vast range) are but moderately successful, some *individual tests* among them nevertheless possess a very high diagnostic value for general intelligence—tests such as disarranged sentences,¹ absurdities,² problem questions,³ abstract definitions.⁴

1. Samples, Rearrange—' My asked paper the I teacher correct to. '

2. What is absurd in—' I have three brothers Rama, and Krishna and myself.'

3. What would you do if you missed the train?

4. Define—'kindness,' 'justice' and 'charity.'

Of these Burt has chosen the problem question type for a more special investigation. He constructed a series of reasoning tests¹ which are graded in the order of their increasing difficulty.

Similarly Dr. Ballard, an education inspector in the London County, has begun a special inquiry in that kind of intelligence which manifests itself more readily in the perception of absurdities.² Now these special researches have not gone far enough yet to warrant any general conclusions as to their final value. But it is expected that there will ensue a certain advantage from such simplification and uniformity in the test material as against the older method of picking up in more or less haphazard fashion all kinds of material like oral commands, perception of colours and comparison of lifted weights. Further if such special tests are found to work successfully they would also help to determine the exact nature of the content of 'general intelligence.' If Burt's reasoning tests prove successful we shall be able to say that 'general intelligence' consists, at least very largely, in the ability to reason. On the older hypothesis nothing so definite is known about general intelligence. It is supposed to be but a general average of all kinds of abilities—sensory, motor and central.

Professor Spearman has advanced a step further in his researches. He has analysed the various kinds³ of 'relation-perceiving' involved in what is ordinarily termed 'reasoning,' and is seeking to determine what kinds of 'relation-perceiving' yield the highest correlation with estimated intelligence.

1 Sample of Burt's graded reasoning tests (See "*Mental and Scholastic Tests.*")

John said: 'I heard my clock strike 10 minutes before the first gun fired. I did not count the strokes, but I am sure it struck more than once, and I think it struck an odd number of times.'

John was out all the morning from the earliest hours; and his clock stopped at 5 minutes to five the same afternoon.

When do you think the first gun fired?

2 Sample of Ballard's absurdities tests (See his '*Group tests of Intelligence.*'):

A sailor who was hauling up a rope from the sea, finding it too long and tiring, gave up the job saying, 'somebody must have cut the end off this rope. There seems no end to it.' What is absurd in this?

3 Kinds of relation finding:

Material—1. Attributive relations *e.g.*, cat: fur.

2. Identity relations—*e.g.*, naming colours.

3. Time relations—*e.g.*, 'what day was it the day before yesterday?'

4. Spatial relations—*e.g.*, copying a diamond.

5. Causal relations—*e.g.*, paper cutting test.

6. Likeness-opposites relations—*e.g.*, analogies and opposites test.

7. Evidential relations—*e.g.*, problem questions.

8. Conjunctive relations—*e.g.*, mathematical equations.

Mention must also be made here of the American work on intelligence—notably those of the American Army psychological staff. Massed results of tests given to over a million and seventy thousand men in the army is interesting chiefly from the quantitative point of view.

Also they are of value in having perfected the technique of group-testing,—the testing of hundreds of men at a single sitting.

From the preceding account of the history of mental testing it must not however be thought that linguistic material has monopolised the attention of all workers. Much excellent work has been done by Porteus, Goddard, Yoakum, Wallin, and Frenald on non-linguistic material, chiefly consisting of maze threading, pictorial absurdities, mechanical puzzles, form boards, building up geometrical figures with blocks, coloured cubes, etc.

IN DEFENCE OF INTELLIGENCE TESTS.

After this brief resumé of the main lines of development, in intelligence testing, we may now go on to a consideration of some of the criticisms generally brought against the use of intelligence tests. The first of these is that

Smartness. ‘smartness is not necessarily intelligence.’ Our errand boys do not belong to a highly intellectual order. Many of our intelligence tests where they emphasise the speed element are but tests of smartness and not of intellection. Many scientists, philosophers also, shall we say, who are undoubtedly of a high intellectual calibre, are notorious *perseverators*, *i.e.* rather slow in turning their minds from one thing to another, and lacking in the sort of agility that characterises the successful tram conductor or the assistant in the general provision stores.

Now such an objection would perhaps be valid where the factor of speed is unduly emphasised as for instance in the American Army intelligence test. But if such an objection is brought against intelligence testing of whatever kind, it has not much value.

As the researches of Dr. Bernstein¹ have shown, it is quite feasible so to construct and apply intelligence tests as to obviate or at least minimise the factor of ‘speed.’

Language Ability. Another objection that is very often raised against intelligence tests as a whole is that they put an unmerited premium upon language ability, as distinguished from say mechanical ability or social tact. Such objections have been brought forward notably by Professors Thorndike and Green. There is no doubt that the university professors and other *academic* men who are largely responsible for the invention of

1 ‘*The speed factor in intelligence*’ Cambridge University Press.

intelligence tests, are biassed already in favour of language ability. They would unconsciously tend to give more weight to that kind of ability (here the language ability) in which they naturally excel. While fully admitting such a possibility I would submit that, as it happens, such a linguistic bias does not vitiate the effectiveness of intelligence tests, for reasons that will presently appear. By linguistic ability is not meant here a *mere fluency* in speech or writing apart from its relation to meaning, as is very often made out by the critics of intelligence tests. If on the other hand we understand by a language ability a certain width of range and agility in the use of verbal forms in close association with their meanings, the superiority of men gifted in language ability seems inherent in the situation.

Verbal forms in their very nature are more significant than other images like the visual or auditory. The field of activity of men ever so highly gifted in visual and auditory imagery is relatively limited. The weapon that a painter, musician, or master mechanic wields is restricted as compared to that of the poet or the scientist who plays upon word-symbols. Verbal forms are capable of giving rise to and fixing pure notions or meanings in various fields both sensory and motor.

It would seem therefore that the prominence so commonly given to word-forms in intelligence test material, far from giving any artificial advantage to the so-called academic type of mind, does but faithfully mirror the superiority that men with a certain power of abstraction actually possess in the concrete world round us. Empirical evidence in support of this could be adduced from the report of the American Army psychological staff. The correlations that they have obtained between the intelligence grades and the vocational pursuits of the recruits (after a study of over 18,400 cases) is remarkable.

THE INTELLIGENCE GRADES IN RELATION TO VOCATIONS.

Low Average	Average	High Average	Superior
General unskilled and casual labourers, coal miners.	Building trades— Bricklayers, carpenters, painters, plumbers. Domestic services— barbers, cooks.	General clerks, foremen, mechanics, book-keepers.	Accountants, medical men, engineers.

The American Army psychological staff took great precautions to give the non-linguals a fair chance of success, by providing for them (the illiterates and the foreigners) separate tests of concrete materials.

That in spite of these precautions the manual labourers, the skilled labourers and the clerks should have stood lower than men of the professions of law, medicine, engineering, is a fact worth pondering about. This seems some evidence, to my mind, that those who have language ability—the ability to think in word-symbols, the power of dealing with abstract relations—have a natural and inherent advantage over others who are lacking in this power. As this advantage holds good equally both in the artificially presented atmosphere of the psychological laboratory and in the actual world outside, the objection that language plays a great part in intelligence tests need not be taken as a serious one.

A further objection that one often hears urged against intelligence tests is that the standard of correct performance is arbitrarily fixed by examiners. As against this it must be urged **Standards arbitrary.** that in a sense all units of measurement, are arbitrary—a matter of convention. Such critics might with advantage glance through the Act of Parliament which defines the English unit of length—the yard.

“The straight line or distance between the centres of the transverse lines on the two gold plugs in the bronze bar deposited in the office of the exchequer shall be the genuine standard of yard, at 62°F.,” etc.

Again, the sovereign, the unit of exchange of goods and services, is also arbitrarily fixed by legislation, as consisting of so much weight of gold of a certain fineness deposited in the Bank of England. To urge that a scale is arbitrary does not necessarily take away from its practical usefulness. The thing that seems to matter most is that there must be general agreement and that we must adhere to the convention rigidly. Intelligence scales, if anything, are less arbitrary, *i.e.* less a *mere* convention, than these other standards of measurement, because they are based upon the generally accepted properties of the normal curve of distribution.

If two distribution curves (though overlapping) have their median points separated by a distance equivalent to at least thrice the standard deviation, then we can be fairly certain that the difference between the data of the two curves is significant. Now it would be possible to construct a scale of intelligence on this principle, by so choosing or rejecting the tests as to obtain distribution curves from age to age whose median points should be separated by nearly thrice the standard deviation. We should then have a foot-rule for the mind with fairly equidistant points on the scale.

THE PRACTICAL VALUE OF INTELLIGENCE TESTS.

A properly standardised and statistically evaluated scale of intelli-

gence could be applied with advantage to the solution of many sociological, educational and vocational problems.

The tests could be used to determine the degree of differences, if any, between the average levels of intelligence of persons belonging to different racial stocks, different communities, different geographical areas, etc. The collection **Sociological.**

of such data on scientific lines might be expected to lead to a better organisation of society than the one which is slowly and painfully evolved by the blind operation of various 'chance' factors. Such data would provide a scientific basis for the condemnation or the justification of the present organisation of society in caste-moulds or class compartments based on wealth. We should be able to determine the relative worth of the two modes of organisation—(1) a *caste* grouping based on the inheritance of a common ideal and culture but allowing of on fresh infusion and (2) a *class* grouping based largely on wealth and allowing for a constant sifting and recruiting.

Where whole schools have been tested a better grouping of children would be possible. The head masters could detect more easily the **Educational.** children who are placed in forms which are too easy for their natural ability. More attention could be paid to individual needs and capacities and there could be separate classes for the bright, the average and the duller at least in the schools of larger cities, where there are already a number of divisions in the same form.

The administrative action of the Government staff of school inspectors in apportioning grants would be greatly helped if they effected rapid school surveys by instituting intelligence tests. Also in judging the work of teachers a proper allowance could be made when the raw material of boys is relatively poor. Under the present public examination system the teacher with a select group of bright children is likely to get all the laurels, and the work of really gifted and conscientious teachers working with relatively poor material may go unthanked. With the growing use of intelligence tests we might expect a more equitable method coming into vogue in the matter of adjudging class promotions, scholarships and new admissions.

And where new educational experiments are conducted—like those of the Montessori method, the Dalton plan, the Garry scheme, or the Oundle plan—the effects of such experiments might be expected to be better revealed by an intelligence survey than by ordinary examinations.

Further, a problem of special interest to Indian educationists, the effects of a foreign language as the medium of instruction, is capable of a scientific solution unbiassed either by political or by economic considerations.

THE MYSORE UNIVERSITY MAGAZINE

From the point of view of vocational guidance the data obtained by the American Army psychological staff, already quoted in brief, are very instructive. If a mental survey is effected here in Mysore, at least relating to higher professions of law, medicine, engineering and civil service, and if the levels of 'intelligence' required for average success in those professions are first determined, we should then be able to test young men early, and dissuade those amongst them whose native mental endowment is far below the standard that will guarantee them a moderate success in the profession to which they are committing themselves irrevocably.

Many persons who would be quite successful business men or agriculturists spend a considerable part of their lives in training for the bar, where they can never hope to succeed.

THE WORK BEFORE US.

A foot-rule for the mind for use among Indian children and more specially with the children of Mysore has yet to be fashioned. Even in the countries of the west where this movement had its origin some twenty years back the foot-rule is by no means perfect. Some marks on the scale are distinct, some so dim that they are hardly visible, and others altogether obliterated. Further, the intervals they mark are not always identical. "To obtain a foot-rule at once more stable and more uniform a great variety of tests must first be assembled. Then vacant intervals could be filled up and tests that virtually duplicate each other could be abandoned." Thus after careful weeding out through a statistical enquiry into the worth of each test as marking a certain critical point at each stage of mental growth, we might evolve an ideal mental foot-rule.

But all this would mean patient enquiry spread over at least five or six years, and the conscientious co-operation of trained psychologists and experienced school-masters, who must be prepared to give much of their valuable time and energy to the work. In view of the immense possibilities of such a foot-rule, the work of standardisation seems worth the effort and the sacrifice.

M. V. GOPALASWAMY.

A small list of books is here given for the use of those who wish to go deeper into the subject, and for those who contemplate helping in standardizing a scale of 'intelligence tests' for Mysore.

TERMAN.—*Measurement of Intelligence* (Harrap).

BALLARD.—*Group Tests of Intelligence.*

The New Examiner.

YERKES.—*American Army Mental Tests.*

And for more advanced students with a taste for Mathematics—

CYRIL BURT.—*Mental and Scholastic Tests.*

ETHNOGRAPHY, WITH SPECIAL REFERENCE TO INDIA.

INQUIRIES into the origins of things, it has been often remarked, are fruitless ventures. Not so, however, in regard to the search for the origin of Man. Ancient Greek writers, like Pythagoras, Plato and Aristotle, answered the question of the origin of Man in different ways. They seem to have believed that mankind had always existed, because there never could have been a beginning of things, relying on the scholastic argument that no bird could be born without an egg, and no egg without a bird. Epicurus and Lucretius believed in a "fortuitous cause," a preparation of fat and slimy earth, with a long incubation of water and conjunction of heavenly and planetary bodies; others, that men and animals "crawled out of the earth by chance," like mushrooms. The spread of Christianity popularized the Mosaic cosmogony and this led to the development of monogenism as an article of faith. The discovery of the New World, however, and with it the discovery of people there, led to the growth of polygenism. Those interested may read an interesting discussion of the arguments, for and against, of this now almost forgotten controversy, in De Quatrefages' well-known book on *Human Species* where they are set out in a form at once lucid and comprehensive. The Negro question gave a turn to the disputation, for it gave a convenient handle to those who asserted that the Negro had no rights, for he was not descended from Adam and Eve. The existence of different languages spoken by different peoples which could not all be traced to one parent language, gave some support to the polygenists, but it was later found that the theory of language being a test of race could not be sustained.

Chief among the monogenists were Linnæus, Buffon, Blumenbach, Camper, Prichard and Lawrence. Since they held that all mankind was descended from a single pair—the question of the colour of the pair being paid equal attention—they had to account for the subsequent divergence producing the present clearly recognised varieties; and in so doing, anticipated the theory of evolution, which was clearly enunciated for the first time by Lamarck. Linnæus believed in fixity of species, but he had doubts about the current Mosaic account. Buffon ascribed the variations of man to the influence of climate and diet. Prichard believed that the transmission of occasional variations might to some extent,

account for the diversity of races. Lawrence, who was much in advance of his times, wrote explicitly thus: "Racial differences can be explained only by two principles—namely, the occasional production of an offspring with different characters from those of the parents, as a native or congenital variety; and the propagation of such varieties by generation." He suggested that domestication favoured the production of these congenital and transmissible variations, and anticipating the Eugenic School, deplored the fact that, while so much care and attention was paid to the breeding of domestic animals, the breeding of man was left to the vagaries of his own individual fancy. Lamarck believed that the species were not fixed, but that the more complex were developed from pre-existent simpler forms. He attributed the change of species mainly to physical conditions of life, to crossing and especially to use or disuse of organs, which not only resulted in the modification, growth, or atrophy of some, but under the stress of necessity, led to the formation of new ones. He also held that changes produced in the individual as the result of environment were transmitted to the offspring. Organic life was traced back by him to a small number of primordial germs or monads, the offspring of spontaneous generation. Man formed, he said, no exception. He was the result of the slow transformation of certain apes. Lamarck's chief opponent, Cuvier, upheld the theory of Catastrophe, of alternate destructions and regenerations, against the new theories of Transformism and Evolution. According to the Catastrophic or Creationist theory—widely held in this country as well as elsewhere—the universe is subject to violent terrestrial revolutions involving the destruction of all existing things and the total annihilation of all living beings belonging to the past epoch. Among the pre-Darwinian writers who held to the evolutionary views was Robert Chambers, who traced in his *Vestiges* the action of general laws throughout the universe as a system of growth and development, and held that the various species of animals and plants had been produced in orderly succession from each other by the action of unknown laws and the influence of external conditions. The formulation of the unknown law by which all species are evolved from other species was the work of Darwin. He did this in 1859, which year marks, as has been well said, an epoch in the history of Anthropology. "Before Darwin's work appeared," as Wallace remarks, "the great majority of naturalists, and almost without any exception the whole literary and scientific world, held firmly to the belief that species were realities, and had not been derived from other species by any process accessible to us . . . (but) by some totally unknown process so far removed from ordinary reproduction that it was usually spoken of as 'Special Creation.' But now all this is changed. The whole scientific and literary world,

even the whole educated public, accepts as a matter of common knowledge the origin of species from other allied species by the ordinary process of natural birth. The idea of special creation or any altogether exceptional mode of production is absolutely extinct." This great change was the work of one man—Darwin.

The further development of this theory or its curtailment cannot be gone into here. But there is one point to which I would invite special attention in this connection. In Professor Keith's paper on the differentiation of mankind into racial types to which I referred in last issue of this magazine, there is worked out a theory which explains a part of the difficulties of the anthropologist for which Darwinism has not so far offered any key. Here is what Dr. Keith says:—"When we ask how these three types—the European, Chinaman and Negro (corresponding to Caucasian, Mongol and Negro types)—came by their distinctive features we find that our evolutionary machine is defective; the processes of natural and sexual selection will preserve and exaggerate traits of body and of mind, but they cannot produce that complex of features which marks off one racial type from another. Nature has at her command some secret mechanism by which she works out her new patterns in the bodies of man and beast—a mechanism of which we were almost ignorant in Darwin's day, but which we are now beginning to perceive and dimly understand." It is the bearing of this creative or morphogenetic mechanism on the evolution of the modern race, of mankind that Dr. Keith addresses himself to in the paper to which I have referred. His argument is too closely reasoned and far too technical to lend itself to retailing here in a few brief sentences. We may however note its general trend. Hidden away, he says, in various parts of the human frame is a series of more or less obscure bodies, or glands five in number, which, in recent times, we have come to recognize as parts of the machinery which regulate the growth of the body. They form merely a fraction of the body—not more than $\frac{1}{180}$ th part of it; a man might pack the entire series in his watch pocket. These are the pituitary body, about the size of a ripe cherry, attached to the base of the brain and cradled in the floor of the skull; the pineal gland also situated in the brain, and in point of size but little larger than a wheat grain; the thyroid gland in the neck, set astride the windpipe, forms a more bulky mass, the two suprarenal bodies situated in the belly capping the kidneys, and the interstitial glands embedded within the substance of the testicle and ovary. Every modern physician knows that the growth of the body may be retarded, accelerated, or completely altered if one or more of these glands becomes the seat of injury or of a functional disorder. The pituitary gland is

part of the mechanism which regulates our stature, and stature is a racial characteristic. On evidence collected, evidence which is being rapidly augmented, we are justified, says Dr. Keith, in regarding the pituitary gland as one of the principal pinions in the machinery which regulates the growth of the human body and as directly concerned in determining stature, cast of features, texture of skin, and character of hair—all of them marks of race. He then adds: In seeking for the mechanism which shapes mankind into race; we must take the interstitial gland into our reckoning. "I am of opinion" he remarks, "that sexual differentiation—the robust manifestations of the male characters—is more emphatic in the Caucasian than in either the Mongol or Negro racial types. In both Mongol and Negro, in their most representative form, we find a beardless face and almost hairless body, and in certain Negro types, especially in Nilotic tribes, with their long, stork-like legs, we seem to have a manifestation of abeyance in the action of the interstitial glands." Associated with these glands, at least in point of development, are the suprarenal bodies or glands. Our knowledge that these two small structures are connected with pigmentation of the skin dates back to 1894, when Dr. Thomas Addison, a Physician to Guy's Hospital, London, observed that a gradual destruction of these bodies by disease led to a darkening or pigmentation of the patient's skin, besides giving rise to other more severe changes and symptoms. Their function is complex and multiple and a better study of it is likely to yield important results bearing on the question why certain races come more quickly to sexual maturity than others and why races vary in development of hair and of pigment. Then as to the thyroid gland, which, from the anthropological point of view, must be regarded as the most important of all the organs or glands of internal secretion. "We have conclusive evidence" writes Dr. Keith, "that the thyroid acts directly on the skin and hair, just the structures we employ in the classification of human faces. The influence of the thyroid on the development of the other systems of the body, particularly on the growth of the skull and skeleton is equally profound. This is particularly the case as regards the base of the skull and the nose. The arrest of growth falls mainly on the basal part of the skull, with the result that the root of the nose appears to be flattened and drawn backwards between the eyes, the upper forehead appears projecting or bulging, the face appears flattened, and the bony scaffolding of the nose, particularly when compared to the prominence of the jaws, is greatly reduced. Now these facial features which I have enumerated give the Mongolian face its characteristic aspect, and to a lesser degree, they are also to be traced in the features of the Negro." I may add

that Dr. Keith, earlier in 1913, brought forward evidence to show that we could best explain the various forms of anthropoid apes by applying the doctrine of a growth-controlling glandular mechanism. "In the gorilla, we see," he remarks "the effects of a predominance of the pituitary elements; in the orang, of the thyroid. The late Professor Klaatsch tried to account for the superficial resemblance between the Malay and the orang by postulating a genetic relationship between them; for a similar reason he derived the Negro type from a gorilline ancestry."

Here we may digress a little to get a view of Hindu cosmogonic notions. The idea of creation has long been dominant in the East. The Brahmanic books give great prominence to it. According to the *Sacred Laws of the Aryas* (2—160) there is periodical creating, destruction and regeneration by an intelligent Creator. The *Bhagavad Gita* (387 *et seq.*) says that the destruction of the world by fire and water is at the end of each *Kalpa*. In the *Vedanta Sutras* (15—19, 286, 309—14, 328, etc.) we read that the origin, subsistence and dissolution of the world proceed from Brahman. This periodical renovation of the world is, we are told, no contradiction to the Eternity of the Veda (*Vedanta Sutras*, 211—16). On account of the sameness of names and forms—we are further told in the *Vedanta Sutras* (333—35)—there is no difficulty in the way of the renovation of the world after a total destruction (*Pralaya*). The same world, we are informed is created again and again in successive *Yugas* and *Kalpas* (*Vedanta Sutras*, 405). The alternating states of creation and destruction are, it is stated, only possible if the *Pradhana* (in Sankhya, *Pradhana* is the material cause of the world) is guided by a law. There are, however, glimpses of the evolutionary view in the Hindu Sacred Writings. But it would be utterly unscientific to say that because though there are stray references to such an origin of things, the ancient Hindus had any coherent, connected idea of the doctrine of evolution as propounded by Darwin. In the *Bhagavad Gita*, for example (8—387), we are told that all beings have been created by nature, not by a cause; but the same authority, as we have seen, may be equally quoted for the Creationist theory. This shows that there is scope for a careful examination of the cosmogonic theories of the Hindus, not only to get a clearer view of them, but also to see how far the opposing theories have been appreciated by their propounders. Here is work, may I remark, enough for a good research scholar, well versed in Natural Science and Sanskrit and imbued with the spirit of scientific research. Such a research may incidentally clear up the bearings of the Indian creation theories on the Mosaic theory and *vice versa*. Whichever form of the creation theory was the earlier, the Jewish or the Hindu, it is undoubtedly, it has had a very wide vogue.

Thus far about the origin of man. Now about his existence in this material world. How long has he been here? The idea of his existence only for a few thousands of years is now almost given up. The discovery of fossil men in Europe has had much to do with the breaking up of this view. Among the more important of these are the Neanderthal (called after a small ravine on the upper bank of the river Drissel in Rhenish Prussia, where it was found embedded in a hard consolidated loam), Spy (in the Namur District, Belgium), etc. Careful studies of these fossil remains show that even as far back as the Palæolithic period, when men used only chipped stone implements, there were several human varieties in Europe, and though in their anatomical characters they were in some respects more animal-like than existing Europeans, they were scarcely more so than certain non-European races of the present day—such, for example, as the Australian. In all cases the skulls were unmistakably those of true men, but on the whole it may be said that the points in which they differed from more recent Europeans betrayed "lower" characters. In recent years this branch of research has been prosecuted with great vigour. In 1907, a lower jaw was found in a deposit of sand at Maner, near Heidelberg. The teeth were found to be typically human; but the chinless jaw, with its thick body, very broad and short ascending portion, and other special points, surpasses, it is said, in its combination of primitive characters all known recent and ancient human jaws; thus it is a generalized type from which they can readily be derived. It has been suggested that, as the jaw is neither distinctly human nor anthropoid, it is a survival from that remote ancestor from which there branched off on the one side the genus *Homo*, and on the other the genera of anthropoid apes. Dr. O. Schoetentack considers the *Homo Heidelbergensis* as of early Pleistocene or late Pliocene Age though Dr. Werth relegates it to the middle of the Ice Age. Many human skeletons of the monstrian age have been unearthed from time to time in France, some of which have been assigned to the Neanderthal-Spy type, and like them are considered distinct from all other human groups, living or fossil. According to Jollus who sums up the results of cave exploration work in France "the primitive inhabitants of France were distinguished from the highest civilized races, not by a smaller, but by a larger, cranial capacity; in other words, as we proceed backwards in time the human brain increased in volume." We know that they buried their dead, and in some cases provided weapons and food for use in a future state. Their inventiveness is proved by the variety and gradual improvement in the technique of their tools and weapons. Their carvings in the round or low relief their spirited engravings on bone and ivory and their wonderful mural paintings, whether in outline, shaded monochrome, or polychrome,

evince an astonishing æsthetic sense and technical skill. The evidence gathered shows that during the latter half of the Palæolithic Age, there lived in Europe mighty hunters, skilful artists, big-brained men, who laid the foundations upon which subsequent generations have built. Brain, not brawn—as it is well put by Dr. Haddon—has been the essential factor in the evolution of man. The human brain had developed at a greater rate than the body, which even then (there is reason to believe) retained unmistakable evidence of man's lowly origin. How long had this evolution been proceeding before monstrian times? The ruder stone implements of the Achenian and Chellian epochs carry us an appreciable time backward; and if even some of the cololiths are artifacts, we can project tool-using man to yet earlier times. Then the record becomes blurred, as it is manifestly impossible to decide whether simple bruising of stones was caused by man or natural agencies. A word of explanation may be added here. The terms Magdalenian, Solutrian, Aurignacian, Monstrian, Achenian, Chellian, refer to various epochs of culture in Palæolithic times, giving their sequence from the newest to the most ancient. These epochs are further sub-divided by some investigators, and several, if not all of them, are connected by intermediate stages. In other words, the remains prove that a steady evolution in culture has taken place. Nowhere do all these layers occur in one locality, and the evidence of their order is a matter of stratigraphy, *i.e.* it is essentially a geological method. Palæontology decides on the animal remains found in the beds. The human anatomist discusses the human remains, and the archæologist deals with artifacts or objects made by man. The accurate determination of the order of the beds is obviously of fundamental importance. The work of pre-historic exploration has recently been given an impetus by the Lyons Faculty of Science, which, according to the latest reports to hand has decided to undertake a most methodical search at Solutre, a village in the Cote d'Or Department famous for its pre-historic remains. It is from that village that the Solutrian Epoch referred to above, takes its name. As the result of recent work, the skeletons of three men, who have been referred to the later Palæolithic Age, have been unearthed. The skeletons were found buried in the same position at depths of 3 ft. 7 in., 5 ft. and 6 ft. respectively. The heads were laid eastward lying on their backs, the hands clasped over the stomach, the skeletons were discovered resting on a bed of ashes. On either side of each head were found two roughly hewn stones in the shape of a cromlech, indicating, it is thought, the exact position to be occupied by the body. The skeletons evidently belong to extremely powerful men, as the smallest of the three measures 6 ft. 2 in. and the tallest 6 ft. 9 in. A great deal more may be expected from this resump-

tion of exploration work at Solutre. In India pre-historic remains— even of Palæolithic times—are known to exist. But systematic work has not been undertaken yet in regard to them. The work of stray but qualified investigators shows that the field is a promising one, provided a properly organized scientific survey is carried out. I may say, as the result of many years of systematic travel, that Southern India, including Mysore State, literally abounds in pre-historic remains. Palæolithic man in Mysore, as elsewhere in Southern India, was comparatively speaking a very rude personage. His remains have been found embedded in Pleistocene deposits. Among the places where these have been found in this State are :—Karadigudda near Banavar ; Talya in Holalkere Taluk ; Nidaghatta near Sakrepatna, Kadur Taluk ; Lingadahalli, Honnali Taluk ; Birmangala, Goribidur Taluk ; and Hiriyur and Kaldurga, Tarikere Taluk. Among the finds unearthed at these places have been shapely pointed oval, adze-shaped, and spear-headed Palæolithic half-drilled stones, celts, saddle stones, ground on the sides and flakes. The people who made and used these rude implements must have died out at a low stage of culture. Long after them came apparently another race, whose remains are also to be found in this State and in the rest of Southern India. These are the people of the Neolithic Age. The direct descendants of these people were probably the people of the Iron Age, whose remains are found widely scattered over the State and Southern India generally. From these are descended probably the present people of Southern India. Work in this line is, however, still in its infancy in India and so we are not in a position to say definitely anything about the mutual connections of these pre-historic races, their relationship with their European and American contemporaries, etc. Heavy work remains yet to be done in this branch of study in India and it is to be hoped that it will be tackled by our re-organized archaeological departments in British India and the Indian States. The best way to start it would be to send a few specially selected men to France to learn this kind of work first-hand and then begin work here in the true scientific spirit.

C. HAYAVADANA RAO.

(To be continued)

HEROINES OF EAST AND WEST.

THE object of University Extension lectures¹ is, I take it, to make possible to those unable to profit by university courses that broadening of outlook which such a course should give. University Extension lectures need not therefore be exceedingly profound, erudite and learned, but they should be calculated to arouse thought and interest. It is with this idea that I consented to give these two lectures. Any therefore who are in search of the erudite should absent themselves from these lectures, but I hope that I may be able to interest those who stay, for the subject has been one that has always deeply interested me, ever since I came to India.

My aim will be to show that in spite of differences of climate, custom, ideal, religion, human nature has wonderfully much in common all the world over. I think that in this present-day world where racial and colour differences and divisions are being so much emphasised, we need to lay much more stress on the things we have in common, and that if we could constantly and consistently do this we should lose many of the prejudices that we have regarding one another, and we should help forward the brotherhood of the world. I was glad to find on my last furlough in England that this aim was far more present in the minds of teachers of little children than formerly. Numbers of delightful books about the children of other lands have been prepared for little children, in which all the sweet human things that they have in common are emphasised, and any differences of custom are merely referred to as specially fascinating features of that particular child, not as something strange and foreign that separates it from others. I heard a lady in a lecture to teachers urging that in all they told of the children of other lands they should make their pupils feel how much these foreign children had in common with themselves, not arouse pity for them because they were so different.

I have chosen four different types of heroines with an Eastern and a Western illustration of each.

The Scholar.—My first type is the scholar and philosopher, and as illustrations I have taken Gargi and Maitreyi for the East and Hypatia for the West. We do not know much of the life story of any of these women and we have to be content to use our imagination considerably in piecing

¹ These articles were delivered as University Extension lectures in Bangalore.

together the very scanty references to them that we find. There are scattered references to Gargi and Maitreyi in the Brihadaranyaka, second and third adhyaya, 4th Brahmana, and the fourth adhyaya, 5th Brahmana. Of the two, perhaps Gargi had more in common with Hypatia. She seems to have been a strong-minded lady who was not afraid of taking up the cudgels against the great sage Yagnavalkya, whereas we hear nothing of any public utterance of Maitreyi. Pandit Sitanath Tattvabhusan has filled in with his imagination the interstices between the fragmentary glimpses given us by the Upanishad. Maitreyi was the daughter of Mitra, the sage and minister of King Janaka. Her father and the sage Yagnavalkya were engaged in the composition of a new Yajurveda and she used to accompany her aunt Gargi who attended many of the discussions of the sages. The result was that as a mere girl of 18 she became so devoted to Yagnavalkya that she determined either to remain unmarried like her aunt, or, if her father could arrange the matter, to marry the sage. The difficulty was that he was already very happily married to Katyayani, and Mitra feared disturbing the happiness of his home. However, the deepening affection of the two sages for one another led to the interchange of visits between the ladies of their households, and Katyayani and Maitreyi became devoted friends. They were entirely opposite in character but each seemed to supply what the other lacked. Katyayani had all the domestic virtues and was a warm-hearted woman: Maitreyi's nature was colder, but she had the intellectual power which her friend lacked. Katyayani began gradually to realize how deeply attracted her friend was to Yagnavalkya. There was no feeling against bigamy in Hindu society and she was soon conscious that there were people who thought that a marriage with Maitreyi would supply the sage with what he lacked in herself, one fitted to be his intellectual helpmeet. The idea at first brought pain, but Katyayani's was a warmly affectionate and humble nature. She conquered her first repugnance to the idea and herself suggested to her husband that he should take Maitreyi as his second wife. Thus was made possible that continual comradeship between Maitreyi and the sage which in Hindu society would have been otherwise impossible. Personally the characters both of Gargi and of Katyayani appeal to me more than that of Maitreyi. It seems to me that the learned woman who has no interest in household affairs or in children should remain single and Katyayani would certainly make a man a much more desirable wife than Maitreyi with all her learning. One agrees also strongly with Pandit Tattvabhusan in his disapproval of the co-wives arrangement, though Katyayani being the sweet creature that she was it worked out happily. The glimpses we get of Maitreyi in the Upanishad are but slight. We are told in the fourth adhyaya, 5th Brahmana, that

when Yagnavalkya was going to enter upon another state he called Maitreyi to him and said, "Maitreyi, verily I am going away from this my house (into the forest). Forsooth let me make a settlement between thee and that Katyayani."

Maitreyi.—"My Lord, if this whole earth full of wealth belonged to me, tell me, should I be immortal by it?"

Yagnavalkya.—"No, like the life of rich people will be thy life. But there is no hope of immortality by wealth."

Maitreyi.—"What should I do with that by which I do not become immortal? What my lord knoweth of immortality, tell that to me."

Yagnavalkya.—"Thou who art truly dear to me, thou speakest dear words. Come, sit down, I will explain it to thee, and mark well what I say. Verily a husband is not dear that you may love the husband, but that you may love the self; therefore a husband is dear. Verily a wife is not dear that you may love the wife, but that you may love the self; therefore a wife is dear." (I need not trouble you with the long repetition of the same sentiments regarding sons, wealth, Brahmans, Kshatriyas, etc., but will come on to Yagnavalkya's closing words.) "As a lump of salt, when thrown into water, becomes dissolved in water, and could not be taken out again, but wherever we taste the water it is salt, thus verily, O Maitreyi, does this great Being, endless, unlimited, consisting of nothing but knowledge, rise from out these elements and vanish again in them. When He has departed, there is no more knowledge, I say, O Maitreyi."

Maitreyi.—"Here thou hast bewildered me, Sir, when thou sayest that He having departed there is no more knowledge."

Yagnavalkya.—"O Maitreyi, I say nothing that is bewildering. This is enough, O beloved, for wisdom. For when there is duality then one sees the other, one smells the other, one hears the other, etc., but when the Self only is all this how should he smell another, see another, hear another, etc? How should he know Him by whom he knows all this? That Self is to be described by No, No. Thus, O Maitreyi, hast thou been instructed. Thus far goes immortality."

One is glad of that little human touch in the learned, philosophic Maitreyi—"Here thou hast landed me in utter bewilderment." One pictures Maitreyi as so absorbed in the study of the Self and in the attainment of immortality that she could have but little sympathy and interest to spare for children and the sweet things of home, but Pandit Tattvabhusan tells us that "Maitreyi lived on happily, loved and honoured by her co-wife and step-children, communicating to them, according to their capacities, the light she had received from her husband."

If one seeks for a parallel to Hypatia, one may find it perhaps more

fittingly in Gargi, the story of whose wordy passage of arms with Yagnavalkya is quite refreshing, though to one unversed in Vedic lore the subject of their discussion seems "stale, flat and unprofitable." This is the description of it as given in the third adhyaya of the Brihadaranyaka Upanishad.—Janaka Vaideha sacrificed with a sacrifice at which many presents were offered to the priests (of the Asvamedha). Brahmanas of the Kurus and Panchalas had come thither and Janaka Vaideha wished to know which of those Brahmanas was the best read. So he enclosed one thousand cows and ten padas of gold were fastened to each pair of horns and Janaka spoke to them: "Venerable Brahmanas, he who among you is the wisest let him drive away these cows." Then those Brahmanas durst not, but Yagnavalkya said to his pupil "Drive them away, my dear." He replied "O Glory of the Saman" and drove them away. The Brahmanas became angry and said, "How could he call himself the wisest among us?" (Five people question and "hold their peace.") Then Gargi Vachaknavi spoke. "Yagnavalkya," she said, "everything here is woven like warp and woof in water. What then is that in which water is woven like warp and woof: through a long series air, sky, worlds of different sorts? In what then are the worlds of Brahman woven like warp and woof?" Yagnavalkya said: "O Gargi, do not ask too much lest thy head should fall off. Thou askest too much about a deity about which we are not to ask too much. Do not ask too much, O Gargi:" after which Gargi Vachaknavi held her peace. There was one more questioner and then Vachaknavi said, "Venerable Brahmanas, I shall ask him two questions. If he will answer them, none of you, I think, will defeat him in any argument concerning Brahman." Yagnavalkya said "Ask, O Gargi." She said "O Yagnavalkya, as the son of a warrior from the Kusis or Videhas might string his loosened bow, take two pointed foe-piercing arrows in his hand and arise to do battle, I have risen to fight thee with two questions. Answer me those questions." Yagnavalkya said "Ask, O Gargi." She said "O Yagnavalkya, that of which they say that it is above the heavens, beneath the earth, embracing heaven and earth, past, present and future, tell me in what is it woven like warp and woof?" Yagnavalkya answers "The ether." Gargi accepts this as solution. She then asks in what the ether is woven like warp and woof. Yagnavalkya said "O Gargi, the Brahmanas call this the Akshara (the Imperishable)." He then proceeds to show the nature of the Akshara, and Gargi says to the assembled company, "Venerable Brahmanas, you may consider it a great thing if you get off by bowing before him. No one I believe will defeat him in any argument concerning Brahman." After that Vachaknavi held her peace. It was the spirit of the Kshatriya that spoke in Gargi the Brahmin as she rose for

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her battle of words with the veteran sage, and one recognizes her kinship with Hypatia.

Regarding Hypatia we know as little as we do regarding Gargi and Maitreyi, and in her case too we are indebted to one who has filled in the blanks with a vivid story from his own imagination. Kingsley uses the scant references in Socrates' *Ecclesiastical History*, in Gibbon's *Decline and Fall*, and in the letters of the Christian Bishop Synesius, as the foundation for his fascinating study of Hypatia and the Alexandrian life of her time.

Hypatia was a Greek, the daughter of the mathematician Theon, and lived in Alexandria during the 5th century A.D. She was a philosopher of the neo-Platonist school and sought to revive the decaying worship of the ancient gods of Greece by putting an allegorical interpretation into all the old myths. She was the writer of many books, but these were all destroyed when the great library of Alexandria was burnt. Her end was a tragic one and characteristic of the fierce, fanatical Alexandria of her day. A Christian blushes to speak of it, for she was done to death by a mob incited to violence by Christian monks. Needless to say, all the truly Christian spirits in the church of that day disapproved of so horrible an act of violence. This is the reference made to it by the Christian historian Socrates in his *Ecclesiastical History*.

"There was a woman at Alexandria named Hypatia, daughter of the philosopher Theon, who made such attainments in literature and science as to far surpass all the philosophers of her own time. Having succeeded to the school of Plato and Plotinus, she explained the principles of philosophy to her auditors, many of whom came from a distance to receive her instructions. Such was her self-possession and ease of manner, arising from the refinement and cultivation of her mind, that she not unfrequently appeared in public in presence of the magistrates, without ever losing in an assembly of men that dignified modesty of deportment for which she was conspicuous, and which gained for her universal respect and admiration. Yet even she fell a victim to the political jealousy which at that time prevailed. For as she had frequent interviews with Orestes, it was calumniously reported among the Christian populace, that it was by her influence he was prevented from being reconciled to Cyril. Some of them therefore, whose ringleader was a reader named Peter, hurried away by a fierce and bigoted zeal, entered into a conspiracy against her; and observing her as she returned home in her carriage, they dragged her from it, and carried her to the church called Cæsareum, where they completely stript her, and then murdered her with shells. After tearing her body in pieces, they took her mangled limbs to a place called Cinaron, and there burnt them. An act so inhuman could not fail to bring the greatest

opprobrium, not only upon Cyril, but also upon the whole Alexandrian Church. And surely nothing can be further from the spirit of Christianity than the allowance of massacres, fights, and transactions of that sort. This happened in the month of March during Lent, in the fourth year of Cyril's episcopate, under the tenth consulate of Honorius, and the sixth of Theodosius."

As we call before our mind's eye the figures of Hypatia and Gargi, we can scarcely perhaps imagine philosophers more different in appearance and outward surroundings. Hypatia, though a dweller in Alexandria, the Gate of the East, was the child of the Greek hills. Let us read the description of her given by Kingsley.

"Her features, arms, and hands were of the severest and grandest type of old Greek beauty, at once showing everywhere the high development of the bones, and covering them with that firm, round, ripe outline, and waxy morbidezza of skin, which the old Greeks owed to their continual use not only of the bath and muscular exercise, but also of daily unguents. There might have seemed to us too much sadness in that clear grey eye: too much self-conscious restraint in those sharp curved lips: too much affectation in the studied severity of her posture as she read, copied, as it seemed, from some old vase or bas-relief. But the glorious grace and beauty of every line of face and figure would have excused, even hidden those defects, and we should have only recognized the marked resemblance to the ideal portraits of Athene which adorned every panel of the walls."

Gargi and Maitreyi, children of the Gangetic plain, may be imagined as slight and graceful, with less perhaps of the commanding dignity of Hypatia, but with more of quiet and calm. To possess herself of the philosophic calm, to attain to oneness with the Supreme through concentration and meditation, must have been a hard task indeed for Hypatia in the noisy, fanatical Alexandria of her day, with all its wild passions and conflicting parties. There was indeed the desert, but Hypatia's place was in the lecture room of the university city, whose whirl penetrated into her quiet study. There was none of the unity and simplicity of life that one associates with the Mithila of King Janaka. The picture we get of Maitreyi is of the humble learner, drinking in her husband's wisdom. Hypatia is the proud teacher of men, to whom they turn for guidance. Orestes, the Governor, covets her favour: Synesius the Christian Bishop writes to her, "Now I am destitute of all, unless you have any power for good. You and Virtue with you, I count a good indeed, of which none can rob me. For you have, and always will have power, by reason of the wise use you make of your credit." And again: "This too I must now add to my misfortunes. For I am not only

left without children but without friends. I am deprived not only of their kindness, but, hardest loss of all, of your most divine soul, which only thing I thought would continue steadfast to me in spite of the ills of fortune and the storms of fate."

Gargi and Maitreyi lived at a time when Vedantic philosophy was in its glory; Hypatia when the Greek philosophy of Plato had degenerated into neo-Platonism. Hypatia was engaged in a hopeless effort to resuscitate what was already effete. The old gods did not satisfy and no amount of allegorizing would make them satisfy the needs of men in those days of struggle and agony. Hordes of Goths, Vandals and Huns were sweeping across the broken Roman Empire. Hypatia might scoff at them as savages, but the wealth and power of Rome and Greece fell before them. It was well for Europe to be subjected to what Kingsley describes as "that stern yet wholesome discipline," for the Gothic nations brought with them "comparative purity of morals: sacred respect for woman, for family life, law, equal justice, individual freedom and above all honesty in word and deed: bodies untainted by hereditary effeminacy, hearts earnest though genial and blest with a strange willingness to learn even from those whom they despised: a brain equal to that of the Roman in practical power, and not too far behind that of the Eastern in imaginative and speculative acuteness." For such people the philosophy of Hypatia would have little appeal, though they might reverence her as a noble-minded woman. But her scorn of family life and of those whom she described as "the savage herd of child-breeders" would fit ill with their domestic and democratic instincts.

But though, as far as externals go, Gargi and Hypatia are poles asunder, there was much in their philosophy that they had in common, for neo-Platonism had been deeply influenced by Eastern thought. This is how Kingsley describes Hypatia's aspirations: "To rise to the immortal gods, to the ineffable powers, onward, upward ever, through ages and through eternities, till I find my home at last and vanish in the glory of the Nameless and Absolute One." And again at the conclusion of one of her lectures in the Museum he represents her as saying, "It is but a little time, a few days longer in this prison-house of our degradation, and each thing shall return to its own fountain: the blood drop to the abysmal heart, and the water to the river, and the river to the shining sea: and the dew drop which fell from heaven shall rise to heaven again, shaking off the dust grains which weighed it down, thawed from the earth-frost which chained it here to herb and sward, upward and upward ever through stars and suns, through gods and through the parents of the gods, purer and purer through successive lives, till it enters the Nothing which is the All, and finds its home at last." This is a fair representation, I

think, of the views of the Neo-Platonists regarding immortality and the destiny of the soul and has much in common with the doctrine of immortality as expounded by Yagnavalkya to Maitreyi, already quoted.

The Mystic.—The next type I have chosen is the Mystic, and in illustration I purpose telling the life stories of Mirabai the Rajput Rani, and Theresa the Spanish Saint. They were almost contemporaries and they were both children of a warlike mountain race.

It is exceedingly difficult to give with any certainty the story of Mirabai's life. According to Tod, in his *Annals of Rajasthan*, she was a Rahtor princess and wife of the famous Rama Khumbha of Mewar. Later research declares her to have been the wife of Bhojraj, heir apparent of Khumbha. A very charming sketch of her life is given in Mrs. Ransom's *Indian Tales of Love and Beauty* though the details do not agree with those in Keay's *Hindi Literature* which are based on the latest researches. According to Keay, Bhojraj, her husband, died before he came to the throne, and Khumbha was killed by Udekaran, another son of his, who seized the throne in 1469. Mrs. Ransom gives the date of Mira's birth as 1517, and says that Bhojraj was the son of Sanga of Mewar. Mrs. Ransom also includes in her story the legend of her meeting with Akbar, which forms one of the scenes also in Mr. Cousins' play *The King's Wife*. Mrs. Ransom however confesses that chronologically its truth is more than doubtful and if Keay's dates are correct Mirabai flourished almost a century before Akbar. Probably therefore this charming story, along with that of Alfred and the Cakes, has to be cast into the limbo of the historically impossible, and history becomes the poorer for its loss. Nevertheless, the fact that this legend should have been so universally accepted shows how great was Mira's fame, and how magnetic her personality. It is natural that among a credulous people, and in "the eye of faith" many miraculous legends should have accumulated around the story of Mirabai as they did around that of Theresa. No marvel would seem too impossible to tell of the lady of their heart.

Let us now see what we can make of Mirabai's life and character from this mass of legends and from her own poems. Here one ignorant of Gujarati and Hindi is under great disadvantage being entirely dependent on translations. From all that we can gather, Mirabai must have been deeply religious even from her babyhood. Mrs. Ransom describes her as "a wee devotee to whose childish imagination her toys and dolls of painted clay were forms of Sri Krishna, the Lord of Love, whom she served with a rich joy marvellous in so tiny a child." While still a child, too, she began to show that wonderful poetical gift which has made her name a household word in Gujarat and Rajputana. The theme of all

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her poems is the same. Her heart pours itself out in passionate raptures of love at the feet of Sri Krishna. Here is a sample:—

“O to prostrate myself at the feet of my Guru!
Without such worship nothing is pleasing to me.
Since the world is but Maya and an idle dream,
My heart yearns to bow at the feet of the Lord.
The river of life has dried up entirely,
Yet fear I not for my soul's salvation,
For I shall kneel at the feet of the Mighty.
O Lord, thy devotee is blinded by passion.
To Mira the world is dark and dreary,
Without Krishna whose love is so all-embracing:
I crave to kiss the feet of my God.”

A recent book in the “Heritage of India” series, entitled *Poems by Indian Women*, contains translations of eight of her poems, from the Hindi and Gujerati. Let me quote one:—

“I, a woman, have a vast estate: true jewels are my portion.
I fashion my nose-ring of Vitthal and the wreath of Hari is
on my heart.
My thoughts are a string of pearls and my bangles are Vishnu.
Why should I go to the goldsmith?
My fetters are of the Lord of Life, Krishna my gold and silver
anklets.
My silver ornaments are Rama and Narayan: my anvat is the
one who discerns the heart.
Let me make Purushottam my casket: Trikam the name of the
padlock.
Let me make the key of compassion and joy, and in it keep my
jewels.”

Tod speaks of Khumbha as author of a commentary on the *Gita Govinda*, but Fraser in his *Literary History* says that the work is Mirabai's own. But her husband's family seems to have been poetically gifted and Mrs. Ransom describes Bhojraj as a poet of no mean ability. Bhojraj delighted in warlike verse, whereas Mirabai's one subject was devotion to Krishna. She soon offended her husband's family by refusing to conform to their particular method of worship and by her lavish gifts to sanyasis, and Bhojraj would scarcely have been human had he not resented her exclusive absorption in Krishna. As a child she is said to have entreated her mother to leave her unmarried, because Krishna had her heart, but her mother treated this as a foolish, childish whim of which Mirabai must

be cured. But some Hindi verses of the poetess express the utterness of her self-surrender:

“ Rank have I bought: the price he asked I paid:
 Some cry, “ Too great,” while others jeer, “ Too small.”
 I paid in full, weighed to the utmost grain.
 My love, my life, my self, my soul, my all. ’

Mirabai still further annoyed her husband by her asceticisms and by singing herself into ecstasy in Krishna's temple, till in her ecstasy she danced and dancing fell into a trance. This indeed was to demean her royalty in the public eye, thought he. But crowds came to hear her songs, and hearing were uplifted. In Mrs. Ransom's story and Mr. Cousins' play, Bhojraj is represented as trying to cause Mirabai's death in various ways and finally ordering her to destroy herself. Legend says that when she sought to drown herself, Krishna appeared to her in a vision of light and the next thing she was conscious of was that she was lying on a bank seemingly far from the spot at which she flung herself into the water. Mr. Keay says that about 1479 the persecutions of the usurper Udekaran forced her to flee from Chittoor and that she became a disciple of Raidas, a Chamar disciple of Ramananda. Mr. Cousins' play and Mrs. Ransom's story end with a charming scene in which Bhojraj, repentant, comes disguised as an ascetic to visit his wife in the temple and entreat her pardon. Thenceforth Mirabai spends half her time at Chittoor and half at Brindavan singing to all who would listen of the boundless love of God and teaching that salvation comes through love of God alone.

In one of her poems Mirabai describes her indifference to the persecutions of her husband's family :—

“ I am true to my lord.
 O my companions, there is nothing to be ashamed of now,
 Since I have been seen dancing openly.

In the day I have no hunger.
 I am always restless and sleep does not come in the night.
 Leaving troubles behind, I shall go to the other side,
 Because hidden knowledge has taken hold of me.

All my relations have come and surrounded me like bees.
 But Mira is the servant of her beloved, the Mountain-holder.
 And she cares not though the people mock her.”

We may hope that the happy end to her story is the true one.
 As Mirabai's Western counterpart I have chosen St. Theresa of

Avila and there are striking resemblances both in the character and circumstances of the two women. We are able to obtain a far more accurate and definite picture of the Spanish Saint, for though a credulous age loved to weave the miraculous into their reminiscences of her, yet we have plenty of truthful history to go upon, and we are not reduced to suppositions and uncertainties as with Mirabai. Mrs. Cunningham Graham has written a most exhaustive and fascinatingly interesting history of Theresa's life and times, and to this I am indebted for my picture of her. In her introduction, Mrs. Graham says, "There is, it seems to me, a mysterious affinity and similarity between the character of Santa Theresa and the grim border fortress of Castile that gave her birth. An age of intense faith, an age of constant warfare produced them both : they both represent to the full the spirit of their epoch. A warlike spirit, a stormy and fighting past, is impressed on every stone in Avila. Theresa is a true daughter of such a past. She embodies all that is noblest, most representative, in the Castilian character, a character famed for its stern self-repression, its endurance, rectitude, sobriety, dignified simplicity and austerity, its grace and stately courtesy." As one reads this one is reminded of pictures of the marvellous rock fortresses of Chittoor and Komulmir, where Mirabai must have spent much of her life, and one feels at once that our two mystics have kinship even in their homes. Theresa belonged to a family of warriors, and what Rajput was not a warrior. Avila "hung between earth and sky" is suggestive of Chittoor, though it lacked the fertility of Chittoor's surrounding plains, for it dominates the wildest, bleakest uplands of Castile and is a city of grey rocks. Theresa was the daughter of Alonso de Cepeda "a dignified, honourable and kindly Castilian gentleman, full of noble and tender instincts." She was born on March 28th, 1515, being the third child and eldest daughter in a family of seven brothers and two sisters. Of her brothers and sisters Theresa says "They were all bound to each other by a tender love and all resembled their parents in virtue except myself." But she was her father's favourite.

Theresa, like Mirabai, was a devotee from childhood. She tells how her brother Rodrigo and herself pored over the black letter Lives of Saints and Martyrs until "when I saw the martyrdom which the saints had suffered for God, it seemed to me that they bought the enjoyment of God very cheaply, and I longed much to be like them, not for the love I understood I bore Him, but to enjoy as soon as possible the great treasures which I read were stored up in heaven. Together with my brother I discovered how it would be possible to accomplish this. We agreed to go to the land of the Moors, begging our way for the love of God, there to be beheaded : and it seems to me that the Lord gave us courage even at so

tender an age, if we could have discovered any means of accomplishing it. But our parents seemed to us the greatest obstacle." How like Mirabai's was her experience. On the road to Salamanca four granite posts are shown as the spot where an uncle espied the would-be martyrs and hied them back home. She was brought up on a thousand fantastic legends of saints and martyrs, whilst ever in her ears was the clash of swords. As Mrs. Graham says "it is not strange that a child so nurtured should have already felt oppressed by the vague mystery of eternity." "We were terrified," says Theresa, "when we read that pain and glory lasted for ever . . . we took pleasure in saying for ever, ever, ever." Of her childhood she herself says "I gave in alms what I could : and that was very little. I tried to be alone to say my prayers which were many : above all the rosary, to which my mother had a great devotion, with which she inspired us also . . . When I consider that, though I was very wicked, I tried in some way since I was a child, to serve God, and did not do some things I see, which the world seems to consider of no importance—when I see that I was not disposed to murmur or speak ill of others, nor does it seem to me I could dislike another, nor was I covetous, nor do I remember ever to have felt envy"—she leaves the sentence unfinished, but we see revealed there the same sweet, loving temperament as was Mirabai's charm.

Theresa lost her mother when she was about twelve years old. Of this sad experience she says "As I realised what I had lost I went in my affliction to an image of Our Lady and besought her to be my mother . . . Although a childish thing to do it seems to me that my prayer has been granted—and she has drawn me to herself." Theresa was now often alone and turned with great avidity to stories of Knight Errantry. The books were not the best food for a growing girl, but the influence they had on her literary style was of immense value later on. Moreover they and the legends of saints were the only form of education available for her. Castile of her day did not consider a woman worth educating, and Theresa herself, though a woman of too fine an intelligence not to value learning, yet thought it belonged to friars and the clergy alone.

Theresa was beautiful and attractive, and her father seems to have feared lest the girl of 16 without a mother to guide her, might go astray. He therefore sent her to a convent. Judging from some veiled references in her autobiography, she was hiding some entirely innocent love affair from her father, and the convent with its calm peaceful life seemed like a harbour of refuge from the temptations of a wicked world. She was deeply impressionable and entered with zest into the religious life, though the thought of becoming a nun was distasteful to her. A severe attack of illness forced her to return home at the end of two years. On her way

home she spent some days with a brother of her father, a disillusioned country gentleman who had determined to spend the remaining years of his life as a monk. He employed Theresa in reading to him books of devotion, a task extremely distasteful to her. Nevertheless it was this visit that determined the whole course of her life. "Although my will could not subject itself to be a nun, I saw that it was the best and surest life and so little by little I began to constrain myself to take it." It was the harsh Christianity of the Middle Ages that caused the terrible struggle in the heart of the bright warm-hearted girl. As Mrs. Graham says "Her aversion to the cloister was only equalled by a tremendous dread of hell," and Theresa herself confesses "It appears to me I was more moved by servile fear than love." When after three months at home she told her father of her determination, he refused his permission for the period of his lifetime. "But," says Theresa, "I was so scrupulous that when I had once said a thing nothing would make me go back." When at last in her eighteenth year she entered the convent of the Encarnacion, she writes "I do not think that when I die the wrench will be greater than when I went forth from my father's house: for it seems to me that every bone was wrenched asunder and there was no love of God to take the place of the love of father and kinsmen, the struggle was so great that if the Lord had not helped me, my own resolutions would not have been enough to carry me through." Theresa had only been two years in the convent when her health gave way. She passed through a time of terrible suffering, which the ignorance of the doctors only increased. When at last she returned to the convent she was a helpless invalid, and thus she remained for three years. But during those years in the convent infirmary "alone with her books and her prayers," her servile fear gave place to love. "She had risen high in the esteem of the good-natured garrulous nuns, who were filled with wonder at her resignation, cheerfulness and edifying discourse." Most of all were they amazed at her discouragement of scandal and gossip. "For I never forgot that I must not say of others what I should not like to have said of me." Though Theresa recovered a considerable measure of health she was never again strong, being subject to fits of paralysis, to fevers and fainting. Nevertheless her indomitable will enabled her to accomplish an amount of strenuous and exacting work from which a strong woman might have shrunk.

A return to health meant a return to temptations, for life at the Encarnacion Convent was no cloistered seclusion. Visitors of both sexes came and went and the nuns mingled freely with them. It was only natural that the young and fascinating nun whose restoration was looked upon as little less than miraculous, to whose beauty illness had but added

a more delicate and winning charm, and who was marvellous witty and shrewd of tongue, should have inspired and reciprocated with all the force of her loving and generous nature some ardent attachments, the details of which she has left shrouded in mystery, and which she afterwards dwelt upon with such profound remorse and contrition. Her spiritual life grew dead and she felt she was deceiving her father whom she had taught so much of the mystic life of contemplation. In the midst of this crisis her father's last illness called her away from the convent to nurse him, and "repay some of the tender devotion he had lavished on her in like circumstances." She upheld him in the agony of pain by the thought that he was sharing Christ's suffering, and no further moan escaped his lips. To Theresa his dead face seemed like that of an angel "as indeed to me," she adds, "it seemed he was in soul and disposition." Her spiritual struggle continued, but she emerged from it a mystic. It was when she was about 41 that she first began having the visions that brought her so much both of joy and pain.

It was from the time that through these visions she realized perfect oneness with God, that all struggle against the irksomeness of her vocation ceased. God was to her all in all. She kept her experiences to herself for some time, but doubting at first whether the visions were really of God, or not, she consulted her confessors. It was at this time of her life that she was brought in contact with some of the first members of the Society of Jesus founded in 1534 by Ignatius Loyola. She received much help from these men, in her perplexities. But others were less understanding and sympathetic. Her visions and trances soon began to attract attention. Many told her they were of the devil. Theresa was subjected to as much petty persecution at the hands of the so-called "religious" as Mirabai suffered from her unsympathetic relations. As with the majority of the Christian mystics of those days Theresa's visions were mostly of the thorn-crowned, agonizing Christ. But often words fail her as she tries to describe her experience. She is just conscious of an all-pervading light of wonderful purity and her soul experiences perfect rest and satisfaction. But there is one vision she describes which has always been regarded as peculiarly characteristic of Theresa. "I saw an angel," she says, "in bodily form, close beside me at my left hand. In his hands I saw a long dart of gold and on the iron tip it seemed to me was a little fire. With this he seemed to me to pierce my heart several times, and that it penetrated to my very entrails: it seemed to me that it bore them with it when he drew it out and left me all aflame with love of God. The pain was so great that it made me give those moans, and so excessive the sweetness caused by this exceeding pain, that one cannot desire it to go, nor can the soul content itself with less than

God. It is not a bodily but a spiritual pain, although the body fails not to share in it somewhat and indeed a good deal. It is a love passage which passes between the soul and God, so sweet that I beseech Him of His goodness to let him who may think I lie, partake of it." Theresa was not a poet like Mirabai, but she would now and then compose verses which she loved to sing when about her household tasks. One set of verses describes this vision. She was wont to sing it softly to herself in her convent of Seville. Theresa was always reticent about her visions. She did not consider them a mark of special sainthood. Rather she thought they were sent her by God to help her in her weakness, and that the greatest saints would not have required them.

There was a danger that one of Theresa's temperament should grow too introspective and self-absorbed. Had she been less great than she was the seclusion of the convent would have narrowed her sympathies and her outlook. But she was gifted with a divine common sense and sweetness and warmth of disposition that saved her from becoming a self-centred contemplative. In her wondrous treatise on prayer she shows the stages by which the soul ascends. She compares the soul to a garden, "rude and unfruitful, out of which God plucks the weeds planting the herbs and flowers of virtues in their stead. It is our duty so to tend and water them by our prayers and efforts that they may grow and send forth sweet smelling flowers for the delight and recreation of the owner of the garden that he may often visit it and regale himself with their fragrance." She speaks of four methods of watering which correspond to the four stages of the prayer life—the laborious method of drawing water from the well ourselves; the method of the Persian wheel; the method of the running stream: and lastly the rain from heaven whereby the whole garden is watered without any effort on our part. Theresa had fought her way upward through these stages. It was a slow and painful way. "We must aim at the highest to attain the lowest," she says. "Had the saints never been inspired by great desires and little by little begun to execute them, they would never have risen to a state of perfection. Although the soul lacks strength at first and like a little bird whose feathers are not yet fledged tires and stops short, yet when she flies she soars high and arrives at much." By the time she was about fifty, Theresa had reached the last stage of her journey towards perfection, when her soul was at one with God and burnt itself out in self-sacrifice and love. Her visions had already made her famous: and she shrank from the publicity they brought. She longed to escape to a convent far from Avila where notoriety could not follow her.

Theresa had often felt that the Convent of the Encarnacion was too crowded and worldly a place in which to live the contemplative life.

She and a few nuns, her relatives, were talking the matter over when a gay young niece of Theresa's remarked "Well, let us who are here betake us to a different and more solitary way of life like hermits." The suggestion met with a quick response in Theresa's heart. She laid the matter before God, and again and again Christ appeared to her in a vision bidding her set about the reform of the Carmelite Order. But though it was from her visions that she obtained refreshment and inspiration and energy, Theresa was pre-eminently a woman of action with a sound practical common sense. She could never have achieved what she did had she been a mere visionary. She and a friend thought out their plans carefully and consulted clerics of importance and influence. Two were found who approved, but the majority were doubtful. However having obtained the permission of their confessors they began negotiating for a site for the new convent. Then indeed there broke forth a storm of indignation. All Avila was scornful and the Provincial of the Carmelite Order, frightened, withdrew his consent. But Theresa took the downfall of her plans and the scorn of her friends unmoved and serene. With wonderful instinct she won to her side one of the most learned men of the Dominican Order, and he procured her a brief from Rome. During the six months of inaction before the necessary permission could be obtained, she set herself to write, at the request of the Dominican, her autobiography which contains the Treatise on Prayer already referred to.

It is unnecessary to detail all the trials Theresa had to face before her new convent of San José was opened in August, 1562, and it was not till December that she was able to overcome all the opposition and gain permission to go with two other nuns from the Convent of the Encarnacion to train her first four novices. But the fact that she left no enemies behind her shows the triumph of her humble and sweet nature.

Life in San José was simple and severe in the extreme. The nuns rose at six and spent the time till eight in summer and nine in winter in prayer and reciting the offices. This was followed by a service in Church. The meal hour was, in Theresa's words "according to how the Lord gives it." Sometimes there was nothing to eat, sometimes only dry bread. The normal food was coarse fish or bread and cheese. After breakfast there was an hour's recreation when the nuns' tongues probably worked as fast as their spindles and distaffs. From eleven till two there was silence when some slept and others prayed and meditated. At two came Vespers followed by an hour's reading. There was further prayer in the evening and from 8 P.M. till 6 A.M. silence reigned. Their dress was of the coarsest and their cells bare in the extreme. No sister was allowed anything of her own, everything was to be in common and shared

according to need. The sick were to be nursed "with all love and indulgence and always conformably to our poverty." In spite of the severity of the life at San José, the joyous spirit of Theresa filled it with radiance. "She dreaded melancholy as the plague and a person infected with it was to be refused admittance to the convent." She ennobled even the most trivial tasks, "God walks among the pots and the pipkins," she would say. The nuns always declared that they fared best when it was Theresa's turn in the kitchen. She had the gift of making much out of little. She exacted from others the same unqualified obedience for which she herself was remarkable, but she insisted that "she who would be obeyed must make herself loved." Above all Theresa was anxious that her nuns should realise they were not there just to save their own souls. They had a great responsibility toward the world outside. Though women, and therefore powerless in the world of that day to help in the work of the Church Militant, they could all wield the weapon of prayer, and it was an age which believed passionately in the power of intercession. This was Theresa's greatness that she raised her nuns' aspiration "to something above and beyond themselves."

After five quiet happy years at San José during which time she wrote the *Chamber of Perfection*, an account of her ideals for the Convent, she was called upon to extend her reforms by founding other similar convents. The work entailed endless journeys, most exhausting for a delicate woman over 50. It also demanded great business capacity which Theresa had in abundance. Above all it required illimitable tact in the management of men and women. One of Theresa's most wonderful triumphs was won over the nuns of the Encarnacion whither she was sent as Prioress to introduce the reformed rule. They were furious at having imposed upon them one they had not selected: more furious still at the thought that their free life, so full of worldliness and pleasure was to be given up for the stern discipline of the barefooted Carmelites. Theresa's Provincial left her to face a raging, hysterical company of infuriated women. Her humility awed them to quiet: her first courteous words conquered them and thenceforward they bore without a murmur her firm yet gentle rule.

Of all the sorrows this heroic woman had to endure the ingratitude and insubordination of some of her prioresses were the bitterest of all but she bore everything with the same beautiful humility. Her last journey ended at Alba in October, 1582. It is almost incredible that a sick old woman of 67 could have endured the trials and privations of that journey but she never complained. When some dried figs were given as the only food available "Do not be afflicted for me, daughter," she said, "for these figs are very good: there are many poor people who do not get such

a treat." She had intended to visit some of her convents where matters were not going smoothly, but was bidden to go to the house of the Duchess of Alba whose daughter needed her presence. With her usual obedience she went, though against her will. But Theresa's pilgrimage was drawing to an end. Before she reached the Duchess' palace, she was taken very ill. Patiently she bore all the cruel remedies prescribed by the doctors of the day. As the end drew near those watching "saw her face change and light up with a majestic and resplendent beauty. All signs of age had faded away, leaving behind the serenity of youth. Clasping her hands together, her soul inflamed with Divinest Love, she murmured gladly sweet and joyous words of welcome. "Oh my Lord, my Spouse, at last the longed-for hour has come: it is now time for us to see one another. . . . The hour has at last come for me to leave this exile, and for my soul to rejoice, one with Thee in what I have so long desired." As regards Mirabai and Theresa may we not echo the words of Richard Crashaw:

"O Thou undaunted daughter of desires!
By all thy dower of lights and fires,
By all the eagle in thee, all the dove;
By all the lives and deaths of love;
By thy large draughts of intellectual day
And by thy thirsts of love more large than they.

* * * * *

By all of heaven thou hast in Him
(Fair sister of the Seraphim!)
By all of Him we have in thee;
Leave nothing of myself in me.
Let me so read thy life that I
Unto all life of mine may die!"

M. L. BUTLER.

(To be continued).

A SERVANT OF HUMANITY.*

ROBERT OWEN is the central figure of British socialism in the earlier half of the nineteenth century. The story of his life, told in the fascinating biography by the late Mr. Frank Podmore is of extraordinary interest. There is no need to repeat it here. It will be sufficient to refer to the glowing eulogy in which the present Premier of England summarizes its main features and significance.

" His birth in 1771, his rapid rise to fortune, his management of the New Lanark Mills from 1800, his experiments in education, his theories regarding the influence of environment on character, his agitation in favour of the state protecting the physically and economically weak by legislation, the new chapter in his life which opened in 1817 when he declared in his memorandum to the Parliamentary Committee which considered the Poor Law, that misery was caused by competition between men and machinery and that it could be cured only by the co-operative use of the means of production and their subordination to the well-being of the masses, the beginning of his community experiments in 1825, his labour stores with their unique methods of exchange, and finally those pathetic closing years unshadowed by a doubt and unclouded by a thought of failure ending with the appeal to take him home to die where he first saw the light, sum up a life of tenderness, innocence, single heartedness, the usefulness but not the beauty of which has long been recognised. Its activities were the yeast which made the whole body of English social reform ferment. From it came the positive view of the state as a protector of the weak and particularly our code of factory legislation; the co-operative movement is its direct fruit; public education and trade unionism owe it much."

Socialism is a term of many shades of meaning. Broadly speaking, however, two leading types may be distinguished, the socialism of sentiment and the socialism of utility. The former is more or less revolutionary in character and is dominated by class consciousness. The latter believes in peaceful reform and lays stress on the solidarity of classes. Orthodox British socialism is on the whole evolutionary. Its watch-word is not class but community consciousness. In the words of Mr. Ramsay MacDonald, " Socialism marks the growth of society, not the uprising of

**Robert Owen, a Biography.* By FRANK PODMORE. London: George Allen and Unwin.

a class. The consciousness which it seeks to quicken is not one economical class-solidarity, but one of social unity and growth towards organic wholeness." This was also the underlying faith of the founder of socialism in England.

Owen agreed with the utilitarians that happiness is the chief end of man. While, however, Bentham and his disciples believed that private property was on the whole conducive to social welfare, Owen uses the felicific formula as an effective weapon against the right of private property. Apply the utilitarian standard, he says, and you find under the *regime* of private property wealth concentrated in the hands of a few and poverty and suffering the lot of the many. The institution of private property is the root of all divisions in society. It is the most fertile source of jealousies, strifes and wars. It must therefore be abolished and in its place must be substituted the system of mutual aid and co-operation based on equality of labour and distribution. Abundance of wealth and equal distribution would then put an end to all economic crises. Mechanical inventions by abridging labour would afford welcome leisure to the labourer. Ignorance would disappear since it would be in the interest of the new community to educate and train every member to become an efficient worker. "With means thus ample to procure wealth with ease and pleasure to all, none will be so unwise as to desire to have the trouble and care of individual property. To divide riches among individuals in unequal proportions or to hoard it for individual purposes will be perceived as useless and injurious as it would be to divide air or light into unequal quantities for different individuals, or that they should hoard them."

Owen never countenanced passionate appeals to the working classes. He even condemned Trade Union activities, when they assumed the shape of class-struggle. And he had excellent grounds for discouraging all forms of violence. He clung with religious fervour to two convictions, that the differences between man and man are due to differences of environment, and that the conditions of environment are amenable to human control. These convictions, it need hardly be said, inspired all the advanced political thinkers of the last half of the 18th century. "They are implied in the *Contrat Social*; they justified the paper constitution of the Abbé Sieyes; they form the basis of the argument in Tom Paine's *Rights of Man* and in Godwin's *Political Justice*; they are embodied in the American Declaration of Independence; nay, they are the unwritten postulates on which Liberty, Equality and Fraternity ultimately rest." It follows that no person is responsible for his own character and impulses. No human being is properly the subject of praise or blame, still less of reward or punishment. The rich were in error. No blame attached to them, for

they did not know the right path. When intellectual enlightenment dawned on them, when they were intellectually convinced that not competition but co-operation is the proper basis of social life, they would cheerfully mend their ways and accept the altered conditions of life, when the experiment was tried. And the working classes would be found to work with more enthusiasm for their common interest than for the sole profit of a master. Owen, no doubt, assigned exclusive importance to the influence of environment but his insistence on its recognition was undoubtedly serviceable. At any rate, his view, as Leslie Stephen points out, is the correct starting point of any social reformer.

Owen trusted for the realization of his aims not to the state but to voluntary effort. The reason for this is not far to seek. When he entered upon his propaganda work, the government, which represented a narrow and reactionary class, showed neither disposition nor capacity to promote social welfare. It is not surprising that in these circumstances Owen came to the conclusion that all state action was futile and that the salvation of the people must come from themselves. In common with the other thinkers of his time, he fixed his attention on the individual and relied on individual effort to build up the co-operative commonwealth.

However, between the years 1865 and 1885 Great Britain entered upon a period of far-reaching change. The Reform Act of 1867 conferred the franchise upon all urban house-holders. The Reform Act of 1884 extended the franchise to agricultural labourers. The democratic state came into being. Distrust of state action gradually died down and influential writers like Mr. Sidney Webb began to press upon the public that it was no longer admissible to allow a socialist theory based on past conditions to continue unchallenged. Socialism had to be adapted to democracy. The transition from Owen to Webb is as interesting as it is instructive. When Owen began to press for reform the working classes lacked organization and they were on the whole uneducated and helpless. It was natural therefore for reformers like Owen to advocate a kind of industrial feudalism under the leadership of capitalists who should be at once the benefactors and guides of their workmen. In the second quarter of the 19th century the working classes began to organize themselves and they lent their support to the middle classes in their struggle for parliamentary reform in the hope that a reformed parliament would protect their interests. The Reform Act of 1832, however, disappointed their expectations since it conferred franchise only on the middle classes and left their allies as helpless as ever. The feeling of disillusionment was intensified by the Poor Law of 1834 which stigmatized poverty as a crime. The conclusion forced itself on the minds of the working classes that the interests of labour and capital were irreconcilable. They began

to think in terms of class-struggle and the idea of class-war finds expression in revolutionary trade unionism and the physical-force Chartists. With, however, the extension of the franchise to the artisans and labourers the state came to represent not a class but the community and there was no need for revolutionary action. The only question was how the central authority was to be used for purposes of carrying out social legislation, and we find accordingly Mr. Webb urging the working classes to send their representatives in sufficiently strong numbers to Parliament so as to form a majority and work for the extension of the principles of democracy to factory, mine and field.

Mr. Webb's social creed is chiefly based on the economic teaching of J. S. Mill. According to Mill the value of land has a tendency to increase in value through the progress of society and without any exertion or sacrifice on the part of the landlord. The state, therefore, is justified in appropriating this 'unearned increment' or rent in the shape of taxation. Rent, however, is drawn from other sources than land, and there are unearned incomes other than rent, *e.g.* interest. Mr. Webb advocates the socialization of every kind of rent and interest and their employment for the benefit of the community. Thus "Webb stands on the shoulders of J. S. Mill" (BELR).

The conversion of Mill from orthodox Benthamism to a mild form of socialism is well known. He "looked forward to a time when the division of the produce of labour, instead of depending, as in so great a degree it now does, on the accident of birth, will be made by concert on an acknowledged principle of justice; and when it will no longer either be or thought to be, impossible for human beings to exert themselves strenuously in procuring benefits which are not to be exclusively their own, but to be shared with the society they belong to." Socialism, in fact, properly considered, is only the adaptation of liberalism to new conditions. Tocqueville long ago pointed out that under the conditions of modern life democracy is inevitable, and socialistic writers contend that it is only through the idea of democracy that socialism can be rightly apprehended. According to Mr. Sidney Ball socialism is intimately associated with democracy in two respects. Regarded merely as a form of government democracy stands for self-government, the control of its own destiny by the community as a whole. Socialism is merely the application of the principle and method of democracy to the social and economic sphere. It endeavours on the one hand to use the democratic state to further social and economic progress; on the other hand to give the economic organization a democratic form. Democracy, however, is not simply a form of government; it is a principle of life. "This principle may be formally expressed as an adequately maintained liberty

of individual development in and through association, the progress of all through all." Democracy aims at such an organization of life as shall secure for the citizens as a body opportunities to make the most and best of themselves. Since, however, democracy remains an illusion so long as one section of a community is under the economic domination of another, socialism aims at the re-organization of society by the emancipation of land and industrial capital from individual and class ownership and the vesting of them for the general benefit. Democracy, in short, stands for political and socialism for economic freedom. Political freedom, however, without economic freedom is a dubious blessing. It is the merit of Owen that he perceived this truth with extraordinary clearness. What he failed to perceive, and in the circumstances he could not have perceived it, was the equally important truth that political freedom prepares the way to economic freedom.

N. NARASIMHA MOORTY.

VERSES FROM THE KANNADA.

(We are indebted to Miss Butler for a series of verse translations of well-known Kannada religious poems. We intend to print several of these in each issue.)

THEE ALONE I WANT (Raga *Gavulapanlu*).

Chorus. What wouldst Thou give to me,
Krishna, Beloved One?
Thyself, not gifts, impart:
Dwell Thou within my heart.

1. Let my head rest near Thy dear feet,
Mine eyes behold Thy smile so sweet.
I fain would list Thy song's glad sound,
And scent Thy fragrance all around.
2. Let my tongue sing Thy praises fair,
Thee let my hands adore in prayer.
Let my feet tread that way divine
That leads the pilgrim to Thy shrine.
3. Let my thoughts dance alone in Thee,
One with Thine own my will must be.
Always to Thee I would belong,
One of thine own devoted throng.

Chorus. What wouldst Thou give to me,
Ranga Vithala, Loving One?
Not Thy gifts give, but Thee:
Mine be Thy grace alone.

WORSHIP THE TRUE GOD (Raga *Mukhari, Jhampetala*).

Chorus. Only Purandhara Vithala, O man, can grant thy prayer
Refrain. Can the sinner understand others' joys and woes?
The excellence of giving alms no angry spirit knows.

1. Of camphor load upon its back can th' ass enjoy the smell?
What of fit times and seasons can the dread Death Goddess tell?
What's fitting or unfitting can the servant maid decide?
The milk that's dedicate to God the monkey will deride.

2. How can the lice enjoy the scent of flowers in the hair?
How can the dog distinguish difference of tune and air?
What fish that swims in water cares whether fresh or salt?
To the mean mind the generous mind seems grievously in fault.

3. No coward e'er can understand the joy of courage bold.
So have no country gods the power to grant or to withhold.
Therefore Purandhara Vithala alone can hear thy prayer:
To Him alone make thy requests, only to Him repair.

SERVE GOD FROM THE BEGINNING (Raga Saveri, *Trividetala*).

Chorus. When trouble comes and sorrow's near
Then only will men wisdom hear.

1. Possessed of wife and child, he takes his ease;
But when at last he falls in trouble's seas,
Then the fool wisdom learns.

2. Neglectful of the wisdom of the good.
Like elephant a-wandering in the wood
He falls into a pit.

3. Oh! ere the sun's eclipse doth thee upset,
The things that matter most no more forget:
Serve God and flee from hell.

THE BLESSED NAME.

Chorus. Harinarayana, Harinarayana, Harinarayana, sing it, O man!
Refrain. Wouldst thou cross the sea of life, the evil sea of life?
Then call on Him the Mighty One who has Lakshmi to wife.

1. In the deep sea of Samsara what profit to be drowned?
Dost say, "I will delight in all the wealth that I have found"?
As a dream it soon will vanish, and then where wilt thou be?
This poor three days' existence, what gain is it to thee?
Let Lakshmi's husband's holy name alone be thy delight:
His name alone salvation is, His blessed feet clasp tight.

2. Dost say, "I have a wife and child"? Dost smile on them with pride?
 When Yama's servants call to thee, with them thou needs must ride.
 In the toils of vain existence why mesh thyself, O fool?
 Call on the name of Vishnu, let this aye be thy rule.
 Let Him whose bed is in the deep, let Him be thy delight:
 His name alone salvation is, His blessed feet clasp tight.

3. Why spend thy time on games of chance? Immersed in household care,
 Why toil and moil so ceaselessly and wildly tear thy hair?
 If in the dark thou open thine eyes, pray then what canst thou see?
 Says Narahari, "Wouldst thou lose death's fear? But think on me."
 Let Him, the Best of beings, alone be thy delight:
 His name alone salvation is, His blessed feet clasp tight.

4. Thou say'st. "I'll feed my body well, and keep it aye in health."
 What of the morrow? Canst thou keep thy bags of golden wealth?
 Why boast of thy possessions, thy houses, mansions, land?
 Only the name of Hari can save thee from Death's hand.
 Let Him be then thy helper, let Him be thy delight:
 His name alone salvation is, His blessed feet clasp tight.

5. To conquer those dread enemies, those sins, the deadly six,
 At first alarm of their approach thy mind on Hari fix.
 Thus wilt thou fright King Yama, his servants from thee drive.
 Who make Seshadri's Lord their hope will ever in Him thrive.
 Let him, Venkataramana, alone be thy delight:
 His name alone salvation is, His blessed feet clasp tight.

DANTE'S DIVINE COMEDY (III).

VIRGIL and Dante found themselves, on the low-lying shore east of the mount of Purgatory, about dawn of Easter Day. "Sweet hue of orient sapphire which was gathering on the clear forehead of the sky . . . to mine eyes restored delight, soon as I issued forth from the dead air which had afflicted eyes and heart,"¹ ("dolce color d'oriental zaffiro" note the wonderful vowel-music). The slopes of the mountain were irradiated by the constellation of the Southern Cross, whose four stars fitly symbolise the moral virtues of Prudence, Justice, Fortitude and Temperance. "I saw near me an old man Solitary, worthy of great reverence, . . . long he wore his beard and mingled with white hair . . . The rays of the four holy lights adorned his face so with brightness, that I beheld him as were the sun before him."² That is, he seemed illuminated with the light of the sun of Divine Grace. This was Cato, guardian of the shore and mountain—the "severest champion of true liberty": one of those who "saw and believed that this end of human life lies only in rigid virtue." His example must every man keep before his eyes in his search for moral liberty. Cato, on being satisfied that the poets were not damned souls escaped out of hell, told Virgil to gird Dante with the rushes of humility and to bathe his face with dew "so that all filth may thence be wiped away." Then at sunrise Dante beheld the white-robed and white-winged Angel of Faith bringing in his boat the ransomed souls from the banks of the Tiber, where, as coming from Rome, the city of the holy Church, the redeemed gather—just as lost souls do on the banks of Acheron. Singing a psalm "In exitu Israel de Egypto"—"When Israel came out of Egypt and the House of Jacob from among a strange people"—the newly landed troop of spirits gazed around in perplexity. The psalm they had just been singing signified mystically in Dante's allegory the passing of the holy soul from the bondage of this corruption to the liberty of eternal glory.

Dr. Wilkins in his book *Dante: Poet and Apostle*, (University of Chicago Press,) from which I take the liberty of quoting at some length points out that one of the ways in which Dante interweaves one part of his long poem with other parts is by using the device of *contrast* hinted at by some slight reference.

¹ *Purgatorio*, I, 13-19.

² *Purgatorio*, I, 31-39.

" For example let us take the contrast between the passage of the damned in Charon's boat across Acheron and the passage of the souls to the mountain of Purgatory in the boat of the Celestial Pilot. Note, in the two passages the contrasts in the general setting, in the look and gesture of the pilots—in the mood of the spirits, even in the vessels and their propulsion.

" Dante and Virgil have joined the sad throng on the bank of Acheron."

" And lo!¹ an old man, white with ancient hair, comes towards us in a bark, shouting; " Woe to you, depraved spirits! hope not ever to see Heaven: I come to lead you to the other shore; into the eternal darkness; into fire and into ice, and thou who art there, alive, depart thee from those who are dead." But when he saw that I departed not, he said; " by other ways, by other ferries, not here, shalt thou pass over: a lighter boat must carry thec."

" And my guide to him—" " Charon, vex not thyself, thus it is willed there, where what is willed can be done; and ask no more."

" Thereon were quiet the fleecy jaws of the ferryman of the livid marsh who round his eyes had wheels of flame. But those souls, who were weary and naked, changed colour and gnashed their teeth, soon as they heard the bitter words. They blasphemed God and their parents; the human race; the place, the time, and origin of their seed and of their birth. Then all of them together, sorely weeping, drew to the accursed shore, which awaits every man that fears not God. Charon, the demon, with eyes of glowing coal, beckoning them, collects them all; smites with his oar whoever lingers. As the leaves in autumn fall off one after the other, till the branch sees all its spoils upon the ground; so one by one the evil seed of Adam cast themselves from that shore at signals, as the bird at his recall. Thus they go over the dusky wave and ere they have landed on the other shore, already on this a new throng is assembled."

" Turn to the other picture. It is Easter morning. Dante and Virgil stand on the shore of the great island mountain of Purgatory.

" And lo!² as at approach of dawn, Mars glows ruddy through the dense mists—low in the west above the ocean floor; such to me appeared—so may I see it again!—a light coming o'er the sea so swiftly, that no flight is equal to its motion. From which when I had a while withdrawn mine eyes to question my Leader, I saw it bigger and brighter grow. Then on each side of it appeared to me a something white and beneath, little by little, another whiteness came forth. My master yet did speak no word, until the first whiteness appeared as wings; then,

1 *Inferno*, III, 80-120.

2 *Purgatory*, II, 13-51.

when he knew the pilot, he cried, " Bend, bend they knees; behold the Angel of God; fold thy hands; henceforth shalt thou see such ministers. Look how he scorns all human instruments, so that he wills not oar, nor other sail than his own wings between such distant shores. See how he has them heavenward turned, plying the air with eternal plumes, which are not changed like mortal hair."

" Then as the Bird divine came more and more towards us, the brighter he appeared wherefore my eye endured him not near but I bent it down and he came to the shore with a vessel so swift and light that the water swallowed naught of it. On the stern stood the Celestial Pilot such that he seemed inscribed among the blessed and more than a hundred spirits sat within. ' In exitu Israel de Egypto ' they all were singing together with one voice, with whatso of that psalm is after written. Then he made to them the sign of the holy Cross; whercon they all threw themselves upon the strand and quick even as he came he went away."¹

Another well-known contrast is between the wood in the Earthly Paradise on the summit of the mountain of Purgatory

" the divine forest dense and verdant "

" La divina foresta spessa e viva "

and the evil gloomy tangled wood at the very opening of the whole Commedia. Of course, it is obvious that the subject matter of the Inferno, the Purgatorio and the Paradiso is in itself strongly contrasted. Dante, however, never labours or exaggerates these contrasts and when a reader comes to such a line as Paradiso, XIV, 27 "the refreshment of the eternal shower," there floats into his mind the suggestion of an implied contrast with the eternal rains of putrid water and of fire in the Inferno. Thus the terse phrase holds a wealth of meaning for the attentive student.

One point more before we return from this digression.

Professor Saintsbury² remarks upon the words describing the wings of the Angel of God.

" Plying the air with eternal plumes,
Which are not changed like mortal hair "

" Dante never throws away the word " eternal " or any other of the greater gold coins of speech whereas our modern " stylists " are apt to play chuck-farthing, or try to play it, with them, till they are as common as the farthing itself. But he is also rather sparing of explanations: he likes to leave his grandeurs to make their own effect. Yet he achieves one

¹ These beautiful translations are by C. E. Norton, *The Divine Comedy of Dante Alighieri* (Constable).

² English Association Essays and Studies, Vol. III, p. 121.

here by the explanation itself and why? Because at first sight the epithet (eternal) may *seem* otiose. Everything about the angel is immortal: why specially his wings? And then the suggestion drops—in the old, simple, inevitable manner—that that change and refreshing of plumage which is so noteworthy and so beautiful in the mortal bird is unnecessary, and would be a blemish, in the bird of God: that there is no need for *him* to renew his mighty and eternal youth."

Seeing the poets before them, the spirits asked them the way to the mountain, but of course in vain since Virgil and Dante were equally strangers here. They were astonished to see Dante breathing—anon one pressed forward to embrace him, Dante's amiable and courteous friend *Casella*, a famous Florentine musician who had set some of Dante's love lyrics to music. Thrice did Dante essay to embrace him, thrice did his hands return empty. At Dante's request Casella sang one of the poet's most famous *Canzone*—in praise of Wisdom—the mystical lady of whom Love discourses to his mind—in whose eyes Paradise is anticipated and yet she was the example of humility—an appropriate song surely for one to hear who had just girded himself with the rush of humility, and under the guidance of human wisdom was about to ascend the mountain. Entranced by the sweet notes, the spirits had forgotten all else when Cato came upon them crying "What is this ye laggard spirits? What negligence, what tarrying is this?"¹ Then says Dante, "As doves, when gathering wheat or tares, all assembled at their repast, quiet and showing not their wonted pride, if aught be seen whereof they have fear, straightway let stay their food because they are assailed by greater care; so saw I that new company leave the singing and go towards the hillside . . . nor was our parting less quick." As they searched for some practicable path up the sheer mountain side, on the left hand appeared a throng of souls who moved slowly towards them. Virgil and Dante go to meet them and Virgil courteously asks of them the way—the throng of souls however were all bewildered. "As sheep come forth from the pen in ones, in twos, in threes and the others stand all timid, casting eye and nose to earth and what the first one doeth, the others do also, huddling up to her if she stand still, silly and quiet and know not why, so saw I then the head of that happy flock move to come on." But seeing Dante's shadow those in front halted in affright and drew back and those that came after, knowing not why, did the like.²

I have purposely quoted at length these two similes of the doves and of the sheep to show how extremely natural and unconventional Dante was—how he wrote simply and directly with his

¹ *Purgatorio*, II, 110.

² *Purgatorio*, III, 79, *sqq.*

eye on the object—on nature as it was: quite a new note in medieval poetry. This group of souls were the excommunicated, those who had died in contumacy with the Church. Their leader was Manfred, King of Sicily, son of the Emperor Frederic II, who was slain at Benevento in 1266—and whose dead body had been disinterred from the battle field by order of the Pope and thrown on the banks of the River Verde—with ‘quenched tapers’ and other rites observed at the burial of the excommunicate.—Professor Gardner¹ aptly puts it. ‘Cut off from the body of the Church by the Pontiffs’ curse, they were re-united to its soul by tardy repents. Dante would clearly show the difference of God’s judgment from that of man. The first soul in Hell was the Canonised Pope Hermit whom the world extolled as a perfect type of Christian renunciation and who died in the odour of sanctity; the first soul of the repentant is the king who died excommunicate, and whose name was tainted with suspicion of incest and parricide.’ Manfred himself says “Horrible were my sins, but Infinite Goodness hath such wide arms that it accepteth all that turn to it.”² Dante’s absorbed and rapt attention to Manfred’s story had made him take no note of the passing time for it was now 9 A.M. This was a practical refutation of the Platonic doctrine of the plurality of souls—“for,” says Aquinas, “Plato asserted that there were divers souls with distinct organs in one and the same body.” The friendly spirits then showed them the sole accessible path, narrow and exceedingly steep. Up this they painfully laboured and on the first stage of the *winding terrace* they rested. A mocking voice from beneath a shady rock attracted them thither and there they saw *Balacqua* an old friend of Dante’s sitting hugging his knees like Sloth’s own brother. He and those with him were the first group of Tardy Penitents who had indeed died in communion with the Church but had through laziness and negligence put off their conversion to their death bed. The second group the poets met on this winding terrace were the souls of those slain by violence who repented and made their peace with God at the last moment. The third group whom we shall meet a little further on, were those Princes and Rulers who postponed piety and let slip opportunities of good through absorption in earthly interests and love of earthly greatness. The most famous of the second group was *Buonconte da Montefeltro*, son of the *Guido da Montefeltro* whose story we learnt in *Malebolge*—the eighth circle of Hell. The son also had been a great Ghibelline leader and was in command of the Aretines when they were defeated by the Florentine Guelfs at *Campaldino* in 1289, a battle in which Dante had fought “valiantly on horseback, in the front rank”

¹ *Dante, Temple Primer*, p. 104.

² *Purgatorio*, III, 121-124.

of the Guelfs. Let Buonconte tell his own story. When he fell dead, he says, "the angel of God took me and one from Hell cried, 'O thou from Heaven, wherefore robbest thou me.' Thou bearest hence the eternal part of this man, for *one little tear* that snatches him from me; but with the other will I deal in other fashion." Accordingly the devil took vengeance on his body and caused it to be carried away by the swollen floods of the river. As Professor Gardner writes "the *lagrimetta* of the dying Knight—the 'little tear' of penitence that saved his eternal part from the fiend—has become one of the priceless pearls in the treasury of the world's poetry." Breaking away from this second group who all implore Dante to procure for them the help of pious prayers on earth—for by such succour alone can their years of waiting in Ante-Purgatory be cut short—the poets come upon the solitary and lionlike soul of Sordello of Mantua, Virgil's own city. I must here mention that the penalty laid upon the excommunicate souls was to tarry below thirty times as long as they had deferred repentance on earth whereas the Tardy Penitents had to wait just the same number of years as they had delayed their repentance. Their only hope of shortening this period of waiting was the help given by the prayers of the pious faithful on earth.

Sordello was a distinguished Italian poet of the thirteenth century who chose however, the Provençal tongue rather than his mother-tongue as the medium of his verse. About the year 1240 he wrote a fine elegy on the death of Blacatz, the poetic baron of Count Raymond Berengar.

In this poem he upbraids and derides the kings and princes of Christendom, beginning with Frederic II, and proudly asserts that he will speak the whole truth in spite of the powerful ones whom he may offend. Therefore Dante assigns to Sordello the task of pointing out the princes and rulers in the *Valley of the Princes*, in which under Sordello's guidance the poets spent the evening and night of Easter Sunday. In this exceedingly beautiful valley scooped out as it were of the bosom of the mountain were princes and rulers who for love of things not in themselves sinful had postponed conversion or been negligent of good. Here, singing together the evening hymn to the Queen of Mercy, the deadliest foes sit side by side consoling each other, Rudolph of Hapsburg with Ottocar of Bohemia, Charles of Anjou with Peter of Aragon. Seated alone was the pious Henry III of England "the king of the simple life." The sight of these princes suggested the thought of their degenerate offspring who now occupied their thrones—except that of Henry III of England—"who in his branches hath better issue" (Edward I). The loving greeting of the fellow-countrymen, Sordello and Virgil, led Dante to inveigh against Italy where one doth now rend the other—where there is no peace.

“Ahi Serva Italia, di dolore ostello,
nave senza nocchiero in gran tempesta,
non donna di provincie, ma bordello!”¹

“Ah, Italy, thou slave, hostel of woe, vessel without pilot in a mighty storm, no mistress of provinces but a brothel!”¹

From this invective Florence is excepted with a sarcastic irony which but emphasises her evil doing.

Here in this valley Dante has pleasant intercourse with two old friends. The souls here, being still outside the Gate of Purgatory are not intrinsically above the reach of temptation to sin, but are kept absolutely free from any sin by Divine Providence. Every evening two golden-haired angels, green clad and green-winged—the Angels of Hope with the flaming but blunted swords of justice tempered with mercy—defend the noble souls from the assault of an evil serpent who would enter this Elysium—this counterpart of Eden—and drag man back from regaining the Earthly Paradise from which he formerly caused his expulsion. The stars that shine here by night—the season when no ascent is possible—are three bright stars representing the *theological virtues*, Faith, Hope and Charity. By day, the time when souls may actually ascend, the four mystical stars that represent the *moral virtues* are shining. This indicates that the proper function of Purgatory is ethical, the recovery of the sound moral will. Dante watched the angels as they swooped swifter than hawks and put to flight the dreaded serpent. Worn out by the toil and anguish of his journey Dante falls into a deep sleep and dreams of a golden eagle, symbol of Justice and of regeneration by baptism, snatching him up into *the fire* of celestial charity. He awoke to find himself alone with Virgil, higher on the mountain, near to the gate of Purgatory proper. He had been borne up by S. Lucy (divine grace). He follows Virgil to the narrow gate of S. Peter set in a cleft of rock. Behind them is Ante-Purgatory in the sphere of air and so subject to climatic vicissitudes—before and above them is the sphere of Fire or Ether. It was now the dawn of Easter Monday. This gate of S. Peter had three steps—on the threshold with his feet on the third step sat the Guardian Angel—with a naked flaming sword in his hand. The first step was of white marble, exactly mirroring the whole man—the step of *Contrition*; the second step was of darkest purple cracked in the figure of the cross—the step of *Confession*; the third step was of bloodred porphyry—the step of *Satisfaction* based on the love of God. Thus the whole symbolises the Sacrament of Penance and the Guardian Angel, the Angel of Obedience was the priest Confessor with robe of ashen hue in token of true humility.² At Dante's earnest

¹ Purgatorio, VI, 76, *sqq.*

² Purgatorio, IX, 115,

prayer the Angel drew forth from beneath his robe the two keys, the silver and the gold keys of judgment and of absolution, and therewith he opened the loudly creaking gate. But before Dante passed through the Angel with his sword graved seven P's—signifying the seven 'peccata' or sins—upon his forehead to be effaced one by one in his ascent through each of the seven terraces of Purgatory—terraces that were not winding but encircling the mountain like separate girdles. With the Angel's warning not to look back lest he find himself outside again, Dante (with Virgil) climbs the steep zig-zag path on to the first terrace about 10 o'clock on the Monday morning. This terrace was about eighteen feet wide—the precipice on one side, the mountain on the other. The mountain side is of pure white marble, carved with scenes from sacred and Pagan history, illustrative of humility, seeming verily to live and speak in their wondrous reality. Approaching them from the left, wearily and painfully came the Souls of the *Froud*, bowed down by terrible weights, reciting a paraphrase of the Lord's prayer for themselves and for those they have left on earth. Dante admonishes us to requite this kindness by our prayers for the dead.

"Truly we ought to help them to wash away their stains, which they have borne hence, so that pure and light they may go forth to the starry spheres."¹

Dante, as a partaker in some degree of their punishment, goes bowed down along with these souls. They go from east to west, following the course of the Sun. That is, our poets on each terrace proceed to the right hand—even as in Hell they had turned to the left hand. We shall find that they have gone just half the circumference of the mountain—the northern half circle—from due east to due west by the time they are entering the Earthly Paradise. Dante converses with two souls, both Italians—one expiating the pride of birth, the other the pride of intellect. The latter soul points out to Dante the soul of *Provenzano Salvani*, the great Ghibelline lord of Siena, expiating pride of dominion which sin made many an Italian patriot into a tyrant. He had led the Sienese to victory over Florence at Montaperti. One supreme act of humility however had shortened his weary waiting in Ante-Purgatory. Dressed as a beggar, he had sat in the market-place of Siena so as to procure the heavy ransom for a friend who languished in a foreign prison. As they proceed, Dante sees upon the floor beneath his feet painted scenes of Pride's punishment. Anon they come to the Angel of Humility, "robed in white and in his countenance such as a tremulous star at morn appears."² With the waving of his wing he removed the first P from Dante's forehead: and

¹ *Purgatorio*, XI, 34-37.

² *Purgatorio*, XII, 88.

showed them the way up to the next terrace, promising them an easier ascent henceforward, since Pride is expiated: not only so but Dante finds that the six remaining engraved P's are now much shallower and fainter. Pride lies at the root of all other sins; without it they would have little virulence, nay often no existence, and even if this were not so, a sinner free from Pride would place no bar in the way of correction. As they ascend they hear celestial voices singing on the Terrace of Pride—"Blessed are the poor in spirit."

"Ah! how different are these openings from those in Hell! for here we enter through songs, and down there through fierce wailings."¹

Let us here note that the souls in Purgatory purge their sins by turning with fervent love to God and detesting what hinders union with Him. Therefore, at the commencement of each terrace examples are seen or heard of virtue contrary to the sin—to excite the suffering souls to extirpate its very root; and at the end are seen or heard examples of the sin's result or punishment—what Dante calls "the bit or bridle." In each terrace, opposed to each deadly sin is given first of all, an example from the life of the Blessed Virgin Mary. For example, the first sculpture on the Terrace of Pride Dante gazed at in marvel was one showing the Angel announcing to the Virgin the Birth of the Lord. As the ascending penitent mounts up to a higher terrace he hears sweet voices chant as a benediction the appropriate beatitude taken from the sermon on the mount. For example—on leaving the Proud—Dante had heard, "Blessed are the poor in heart." At the end of each terrace stands an Angel, personifying one of the virtues opposed to the deadly sins; for only when the sin is completely purged away can man contemplate the "awful loveliness" of the contrary virtue. Dante loved symmetry—he chooses his examples in well-balanced order, impartially from Scripture and legend or mythology. To exemplify this in detail for each terrace would take too long. I propose to deal briefly with the remaining terraces.

On the second terrace Dante wept to see the envious, clothed in hair cloth, leaning helplessly shoulder to shoulder against the rock, their eyelids sewn up with iron stitching. For the eyes must look no more askance on gifts bestowed on each for the benefit of all. Spirit-voices in the air cry aloud world-renowned sayings of the loving and of the envious—and cite envy's punishment. The dazzling Angel of Brotherly Love removes the second P, the mark of envy and shows the upward way. They hear chanted behind them "*Blessed are the merciful*" and "*Rejoice, O Victor.*" As they mount the stairway, far less steep than the others, Virgil explains how the more of any material thing one man has, the less of it there is for others; whereas the more peace, or knowledge, or love one man has, the

more there is for all the others. Hence envy disturbs men's hearts only because they are fixed on material instead of spiritual things.

On this they reached the third terrace—that of the Wrathful—whereon Dante in ecstatic vision beholds examples of meekness and patience. For this terrace is partially beclouded with an all-veiling smoke-fog bitter to the taste and smarting to the eye. Anger so obscures the vision that man cannot see things as they really are. Therefore the calm of ecstatic vision is necessary to these sinners. This dense fog-smoke comes with the souls of the wrathful who, coming exceptionally on this terrace from west to east, meet our poets. Dante has to lean on Virgil's shoulder.—Hearing the poets talking together, a certain soul, the Lombard Marco, turns back and enters into converse. From him Dante learns that man has no right to ascribe to planetary influences his evil actions as if he had no free will and no direct dependence on God which may make him superior to all material influences. The evil condition of Italy and the world is to be ascribed to the confusion of the spiritual and temporal power and to the Papal usurpation of imperial rights. “The one power, (the Papacy) hath quenched the other; and the sword is joined to the shepherd's crook, . . . being joined thus, the one feareth not the other.”¹ For a second time, Dante on this terrace partakes of the pains of the penitent souls. As the Sun is setting, Dante issues from the dark mist and is roused from the inward visions of anger's punishment by the dazzling splendour of the Angel of Peace, who fans away the third P and shows the way upward. Dante hears the chant, “Blessed are the peace-makers who are without evil wrath.”

The second night in Purgatory is spent at the entrance to the fourth terrace—the Terrace of the Slothful. Now at this halfway stage Virgil expounds the moral scheme of Purgatory in his discourse on Love: showing how Love (or attraction) of some sort is the root of all evil as of all good conduct. Therefore every specific affection must not be considered as itself good. Moral merit begins when we refuse to love and follow things that are speciously attractive but cannot be affiliated to the love of God. It is natural to man to love God. It is not, then, merely in loving God, but in rejecting all impulses that do not harmonise with that love that man's moral freedom vindicates itself—and it is therein that his merit consists.² Then came rushing by the souls of the slothful at full speed in the moonlight full of longing to lose no time through too little love. Those in front cry out examples of zeal in Mary and in Cæsar, those behind chant sloth's punishment.

1 *Purgatorio*, XVI, 109.

2 *Vide the argument to the eighteenth Canto, Purgatorio, “Temple Classics” Edition.*

Before the dawn of the third day in Purgatory Dante, in his sleep, dreams of the Siren, symbol of sensual seduction—fitting prelude to the purgation of sins of the Flesh, as the dream of the eagle had been to that of sins of the Spirit. But at the exhortation of a lady from heaven Virgil exposes to Dante whilst still in his dream, the essential filthiness of the Siren. Roused up at sunrise, Dante followed his guide. The Angel of Zeal, “with outspread wings which swanlike seemed,”¹ in exceedingly gentle and kind tones, cancels the fourth P and shows the stairway up to the fifth terrace whereon the Avaricious and the Prodigal lie face downwards to the floor—inasmuch as when on earth they had cleaved to the dust. Here the helpless souls themselves cry out the examples and the warnings by day and night respectively. Here a prostrate soul—Pope Adrian V—tells the story of his tardy conversion from the life that is false and rebukes Dante for kneeling to him because in the spirit world personality is stripped of office however august. From him they learn that souls are purged in as many terraces as may be necessary—but some may pass free through those terraces whereon sins are purged of which they were guiltless. So later on we shall learn how the Latin poet *Statius* rose from this terrace and made his way straight through the two above: for five hundred years he lay here punished for prodigality, for four hundred years he had been in the Terrace of Sloth, and a long age in Ante-Purgatory. Another prostrate soul they heard—Hugh Capet—“ancestor of the royal line of France pouring forth bitter sarcasm and scathing invective upon all the royal house of France, the great Guelf power that opposed the Empire oppressed Italy and wrought scandal in the church.”² Especially against Philip the Fair are scathing words spoken for his infamous sacrilege in insulting and laying violent hands upon Pope Boniface at Anagni by his agents. Boniface, we know, was Dante’s worst enemy but Dante distinguishes the man and the office and burns with indignation “to see Christ made captive in his vicar and mocked a second time.”³

Shortly afterwards, the mountain shook us with an earthquake and all the penitent sang “Gloria in Excelsis Deo.” Thus was Statius liberated and joined Virgil and Dante. To them he explained how the pains of Purgatory are voluntarily endured; the penitent desire the bliss of Paradise with the absolute will but suffer these purifying pains with the conditional or actual will—the same impulse or desire which they formerly had to sin. Their wills alone show them when purification is complete. There follows a scene of tender Dantesque playfulness when Dante describes the recognition of Virgil by Statius. Statius tells them how

1 *Purgatorio*, XIX, 46.

2 *Gardner, Dante Primer*, p. 111.

3 *Purgatorio*, XX, 87-88.

he was led to secret unacknowledged Christianity by the influence of Virgil's fourth eclogue, in which the men of the middle ages saw a divinely inspired prophecy of the coming of the Messiah. Already had the Angel of Liberality removed the fifth scar from Dante's forehead saying, "Blessed are those that thirst after righteousness." It is past 10 o'clock in the morning when the poets issue upon the sixth terrace—that of the *Gluttonous*. The pilgrims encounter a wondrous tree, fruit-laden and bedewed with clear water from a neighbouring fall from the midst of the foliage of which a voice recites examples of abstinence. The once gluttonous souls that meet them have their faces so drawn and emaciated by thirst and hunger as to be unrecognizable save by their voices. Thus Dante recognized his old friend Forese Donati, brother of Corso Donati, but the memory of their dissolute lives together was sorely grievous. Forese points out Pope Martin IV and the poet Bonagiunta of Lucca, and tells Dante that there are other trees like this (one indeed was a shoot from the Tree of Knowledge of Good and Evil), and that each renews the pain of the penitent; nay rather their solace, for now they exult in crucifying with Christ the old Adam in them. To the prayers of his widow Forese had owed his speedy promotion to this terrace. She was one of the rare virtuous souls left in a place of infamy, for Forese proceeded to denounce the dissolute fashions of the women of Florence. Dante in reply tells Forese the story of his conversion from the dissolute life which he and Forese had once lived together. Passing another tree, from whose branches spirit voices proclaim examples of gluttony's punishment taken from classical legend and holy Scripture—they are summoned upwards by the glowing and dazzling Angel of Temperance, and they hear the sixth Beatitude—"Blessed are they which do hunger after righteousness." As they ascend the narrow stair towards the last terrace Statius explains the generation of the body and how God at a certain point in the process of generation infuses a rational soul, which exists, after the body's death, invested with an aerial body as a shade.

This was Dante's answer to Averroës who, finding no organ in the human body appropriated to the immaterial principle of intelligence, conceived the soul to be no part of the individual life of man but a universal all-pervading principle. Statius explained how, after bodily death, the soul itself, which came from without, remains, with the purely immaterial powers of memory, intelligence, and will, now shut off from intercourse with outward things but in themselves more vivid than ever. When the soul drops to Acheron or Tiber's banks, it becomes aware of its destination and reflects itself upon an aerial body, flames or rainbow-like, and by the means of this

aerial body renews its intercourse with the outer world and the experiences of senses.¹

They have now reached the seventh terrace which is filled with flames except for a narrow margin on the outside on which the poets move in single file and whereon Dante must give such good heed to his steps that he can hardly attend to the souls who commemorate examples of chastity from the midst of the glowing heat. This group consisted of those who had failed to restrain their lust within the limits prescribed by the social institutions of humanity. Another group which meets them were those who had not even observed the laws laid down by nature. Each group proclaims a warning example of lust as they sweep past each other. In this twenty-sixth Canto is a passage eulogized by Ruskin (*Modern Painters*, II, p. 259) as probably the finest description in literature of intense heat. The rays of the afternoon sun were striking the poet's right shoulder. Dante's shadow could not be seen when it fell on to the burning flame to his left hand. The only effect was to make the flame more ruddy. "And with my shadow, ruddier I made the flames appear and *even at so slight a sign* many shades I saw, as they passed, give heed . . . and one to the other they began to say, 'He doth not seem a shadowy body.'"² Ruskin maintains that, "in these few very simple and in some sense commonplace touches," Dante 'with no help from smoke or cinders' has produced a more vivid effect than Milton has secured in ten lines of elaborate description and varied imagery." On this terrace Dante converses with Guido Guinicelli of Bologna—one of the earliest poets who wrote in pure Italian whose later work inspired much of the poetry of the Florentine School.—We learn from Dante's conversation with the poet Bonagiunta among the Gluttonous³ that Dante's poetic method "the *dolce stil nuovo*" was a direct and sincere outpouring of himself. "I am one who, when Love inspires me, take note and go setting it forth after the fashion which he dictates within me."⁴—Thus he expresses the truth that all great poetry is the "transfigured life" of its author. Every penitent soul must needs pass through the flame. We can well imagine Dante's fears and reluctances, "scanning the fire and vividly recalling the human bodies I had once seen burned." The Angel of Chastity was standing on the bank outside and above the flames and singing "Blessed are the pure in heart." He told them, "No farther may ye go, O hallowed souls, if first the fire bite not."⁴

1 *Vide* the argument to *Purgatorio*, XXV, "Temple Classics" edition.

2 *Purgatorio*, XXVI, 7-10.

3 *Purgatorio*, XXIV, 52-55.

4 *Purgatorio*, XXVII, 10.

Virgil appealed to Dante to enter and fear not. Only the utterance of Beatrice's name overcame his reluctance. "When I was within, I would have flung me into molten glass to cool me, so immeasurable there was the burning." "How unequalled is Dante's power of piercing at once to the very heart of things and revealing as it were a whole world of emotion or of passion at a flash. . . ."¹

They reach the ascending stair, greeted by dazzling light and celestial strains of "Come, ye blessed of my Father." Night fell and the poets rested, each on a stair. Dante fell into a deep slumber and dreamt of Leah, type of the active life, singing of herself and her sister Rachel, the type of the contemplative life. At sunrise they ascended to the entrance of the Earthly Paradise—the goal of Purgatory. Dante² has recovered from the dire effects of the fall of man; his will is free, unwarped and sound; he has no further need of direction or directive institutions. Virgil's mission is now over: Dante has regained the state of innocence, and has no further need of the external institutions or regimens of Church or Empire—though he still needs the guidance of philosophy and revelation. Virgil speaks thus to him his last words.

"No more expect my word, nor my sign. Free, upright and whole is thy will, and it were a fault not to act according to its prompting; wherefore I do crown and mitre thee over thyself."³

And so the crowned King and mitred Priest entered upon his kingdom and temple of Paradise.

F. R. SELL.

(*To be continued.*)

¹ Dr. Moore, *Time References in the Divina Commedia*, p. 109.

² *Vide* the argument of Canto XXVII, "Temple Classics," *Purgatorio*.

³ *Purgatorio*, XXVII, 139-142.

REVIEWS.

A Syllabus of Indian Philosophy, based on the lectures of DR. BRAJENDRANATH SEAL, M.A., PH.D., D.S.C., Vice-Chancellor, University of Mysore.

THIS is not a work sent for review, but we desire to call the attention of those readers who are interested in philosophy to the object with which it has been published and which is stated, in a foreword, by Mr. V. Subrahmanya Iyer, the Registrar of the University, who obtained Dr. Seal's consent for the publication of the book. We print most of this foreword, and hope that the circulation of the syllabus may afford both eastern and western students of philosophy a truer idea of the scope and validity of Indian Philosophy. Mr. Subrahmanya Iyer has a few copies left, and those outside the State who desire copies should send a stamp: the syllabus is in pamphlet form. Mr. Subrahmanya Iyer writes:

"This syllabus of Indian Philosophy formed the basis, in great part, of the lectures that Dr. Brajendranath Seal delivered, for several years, as George V Professor of Philosophy, at the University of Calcutta. Recently an epitome of the syllabus was prepared by him for the use of the students of the post-graduate classes of the Mysore University, of which he is now Vice-Chancellor. My object in obtaining the author's consent to the publication of the comprehensive syllabus is primarily to show what a rich and inexhaustible mine of philosophical wealth there still exists in India for the seeker after truth to quarry. Further, after a study of European philosophy for over thirty-five years, I feel that India could make substantial contributions to the modern stock of the world's highest speculative thought. India may not, it appears to me, be brushed aside, as she has often been, with the observation that she can boast of nothing more than primitive and exploded ideas which have only an archaeological interest. Dr. Brajendranath Seal's *Positive Sciences of the Ancient Hindus* and Sir P. C. Ray's *History of Hindu Chemistry* testify to the value of the contributions that this country has made in the past to the formation of *scientific concepts*, a pioneering work necessary for the advent of the experimental sciences, and complementary to the formulation of philosophical categories.

"This syllabus at first sight appears to extend over areas placed in Europe, latterly, outside the pale of philosophy. But a little thought will show that philosophy in its wider sense necessarily stretches its roots

to every region of human knowledge and practice, a feature on which the ancient Hindus laid great emphasis. Every Indian system of philosophy attempts at covering the entire field of thought, in its ultimate grounds and basic principles, from physics to metaphysics, including philology and a study of social institutions. . . .

"It was at my special request that Dr. Seal put himself to the trouble of elaborating and presenting the consolidated syllabus in a form that might be of use to the advanced students of Indian Philosophy as well as of Indian Culture. And it is hoped that this publication will serve to stimulate further research, so that such work may help to win for India her rightful place in the world of thought."

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Contemporary British Philosophy Edited by J. H. MUIRHEAD, LL.D.
Allen and Unwin. 16s. net.

DR. MUIRHEAD has rendered many services to philosophy, and his latest such service is the publication of the volume under review. He tells us in the preface that it was from Germany that he got the idea of such a book: a number of philosophers contributing brief articles on what each of them considers the most important philosophical problem. The result is a very substantial volume furnishing a regular feast to all lovers of philosophy. No less than sixteen philosophers figure in these pages, and all phases of thought are represented in them. The value of the work is heightened by short autobiographical sketches, which aim at showing the influences that have gone to mould the philosophy of the writers. It would be no exaggeration to say that the one outstanding philosopher who has profoundly affected all his contemporaries in one way or another is the sage of Oxford, F. H. Bradley. His *Appearance and Reality* has been an epoch-making work, creating a school of followers and evoking a vast amount of criticism. It would have been in the fitness of things if the greatest contemporary British philosopher could have contributed an article to the volume under review. But Dr. Bradley has excused himself, and the book is poorer for his denial. Barring him all the leading thinkers of to-day in England and Scotland have been represented. It was a lucky accident that Dr. Bernard Bosanquet's contribution on *Life and Philosophy* came in time: "his last will and testament to his generation" as the Editor puts it. In it he emphasises "the recognition of the spirit of logic as the essential criterion of value and reality throughout experience," and he gives passionate expression to his conviction that "totality expresses itself in value."

Professor Baillie discourses on *The Individual and His World*, and offers the conception of the growth of individuality as solving the riddles

of knowledge and reality. He has outgrown the Hegelianism of his early years in the direction of emphasising religious experience. Mr. Broad gives vent to his rigorously critical intellect in questioning the claims of speculative philosophy. It is refreshing to find Professor Hobhouse explicitly recognising the debt he owes to Idealism, and it is really the idealistic implications of his thought that give a certain strength to his empirical evolutionary philosophy.

On the whole it is clear that the Idealistic tradition is still going strong in contemporary philosophy, in spite of the fact that a veteran Idealist like Dr. J. S. Mackenzie shows realistic leanings. But its prominent critics and founders of rival schools like the Hon'ble Bertrand Russell and Dr. F. C. S. Schiller have expressed their views with their usual vigour. Russell's *Logical Atomism*, with its emphasis on the importance of a philosopher's logic rather than of his metaphysic, is one of the best essays in the book. Dean Inge and Dr. William Temple represent the Christian standpoint in philosophy. Both of them write clearly and forcefully, though not always convincingly. Dr. William Taggart represents the old deductive method in metaphysical speculation, sternly rigorous, a figure by himself, that seems to stand above all controversies of relativism or pragmatism. Professor Muirhead's essay is a good running commentary on contemporary philosophical developments, very lucid but with an ill-concealed bias towards traditional Idealism.

In a short review like this it is hardly possible to do full justice to all the rich fare that is spread out before the readers of this book. It covers such a wide range of topics and represents such varied standpoints that only a perusal of the book itself can make one fully realise its worth. We are glad to note that Professor Muirhead offers us a second volume very shortly, to which Professor Ward, Professor Webb and Professor Sorley have promised contributions. The publication of these volumes is proof conclusive that neither the achievements of science nor the fever of politics has succeeded in affecting the pure flow of philosophic thinking: a tribute alike to the eternal freshness of philosophy and to the British votaries at the shrine of philosophy.

A. R. W.

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Bengali Religious Lyrics. Sakti. By EDWARD J. THOMSON AND A. M. SPENCER. "Heritage of India" Series. Association Press, Calcutta.

THIS book contains an English version of 103 religious songs in Bengali in praise of the Goddess Sakti, consort of Siva, selected mostly from the poetical works of Ramaprasad Sen, twelve other Bengali poets contributing one or two each. Though all these poets are of the 18th and

19th centuries, the religious thoughts expressed in these poems are exactly the same as those of earlier Sanskrit poets. The specimens selected for translation in this book are free not only from the mysticism of the Tantric cult, but also from the fancies and conceits of Sanskrit rhetoric which are frequently seen in other vernacular poems. Leaving aside the "punning sound and alliteration, a musical toss and play of similar syllables," inimitable in translation, there can be nothing too difficult in the original to be rendered in English. With regard to the religious technicalities, 'nine doors,' 'six passions,' 'the sky reflected in the earthen pot,' 'the five elements,' 'the six chakras,' and the like, the translators have clearly explained them in the foot-notes. The style of the translation is elegant and reads smoothly and sweetly. While a perusal of the translation will bring it home to a Hindu reader other than a Bengali that the Bengalis live the same religious life and think the same religious thoughts that he himself lives and thinks, it will not fail to convince a European reader also that the religious spirit of man is the same all over the world.

Still more interesting is the scholarly introduction furnished by the learned translators, briefly discussing the origin and growth of the Tantric cult, its right-hand and left-hand aspects, the social and political conditions of the times in which the poets lived, their effects on the thought of the poets, the old and modern forms of the Durga Puja festival observed in Bengal, the life of the poet, Ramaprasad, his theistic or dualistic belief as contrasted with the monistic doctrine of Sankara, which Ramaprasad rejected, preferring the eating of sugar to becoming sugar himself, and the legend of Parvati's marriage with Siva, which is a model of the Bengali marriage. This is an excellent specimen of how a popular poetical work of a people can be read with critical insight. No doubt the book will be a valuable addition to the library of students of Indian history and literature.

R. S. S.

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The Separation of Executive and Judicial Functions: A Study in the Evolution of the Indian Magistracy. By R. N. GILCHRIST, M.A. The University of Calcutta.

PRINCIPAL Gilchrist as the author of *Principles of Political Science* is already well-known to students of politics in India. The book under review is a useful publication by the University of Calcutta, dealing with a question which for half-a-century at least has agitated the minds of Indian political readers. It has formed a subject for reports, for congress resolutions and for endless newspaper articles. After all

this persistent agitation it is no wonder if the Government of India have been forced to accept the principle of the separation of executive and judicial functions, though they move but slowly. Perhaps as a contribution to practical politics in India, Principal Gilchrist's book comes a bit too late, though there can be no doubt as to its value from an academic standpoint.

The author candidly admits that the events in India since 1920 have moved much faster than any one could have anticipated. And hence it is that the book, which seems to have been nearly ready for publication in December 1920, had to wait three years more before it was actually published with the necessary trouble of a good deal of rewriting and recasting. The book is divided into three chapters: the Conditions of the Problem, History of the Problem, and Criticism of the Problem. The chapter on the History of the Problem is very lucidly written, taking us into the very heart of the difficulties—and the author would also say the exaggerations of the problem, and the account of the famous Hobhouse memorial is particularly arresting.

It is in the last chapter that the author's own opinions come out. On the whole it is clear that his sympathies are with the traditional Government view against any separation of judicial and executive functions. He defends it on the basis of the stock Anglo-Indian and Kiplingian argument: "India is not Europe, and never will be Europe" with the usual emphasis on "prestige," and an assertion that whatever the defects of the traditional arrangements they have not been many, and they have been obviated by the fact that the system has been in the hands of European officials and not Indian officials. Statements of the kind invite some retort courteous, but it would be only flogging a dead horse. All the more so as Principal Gilchrist is by no means a die-hard. He is alive to changed conditions, especially as inaugurated by Mr. Montague's pronouncement in the House of Commons on 17th August 1920 and by the Montford Reforms. He recognises that under the growing democratisation of India the old system will not work and he holds no brief for the old system under any conditions. At the same time he is not prepared to advocate a radical reformation of executive and judicial functions. He longingly looks—in spite of Prof. Dicey—to the introduction of a *Droit Administratif* and administrative courts as the best solution to suit Indian conditions. He defends it on the ground that both Japan and Germany—and Germany according to the author has "the most democratic constitution of modern times"—have adopted it, and he defends it against Prof. Dicey's indictment of the French system by insisting that the judges of the administrative courts should be appointed for life so as to ensure their independence. There is a

good deal of suggestiveness in this, provided these courts can carry on their work expeditiously and without those vexatious delays which mark the ordinary law courts and eventually make them sources of as much injustice as justice.

We are sure students of practical science and especially in university classes will find a good deal in the book to make them think, and after all this is the highest service a book can render to its readers.

A. R. W.

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Lessons on Indian Agriculture. By D. CLOUSTON, D.Sc., C.I.E. Macmillan. 3s. 6d.

ELEMENTARY books on Indian Agriculture are very few and any addition to their number should be welcomed. It is therefore a great pleasure to give this rather belated review of Dr. Clouston's book.

Agricultural conditions in India are so varied that it would be impossible to write a book which would fully meet the needs of all sections of the country. These lessons on Indian Agriculture have nevertheless a wide application and undoubtedly provide the best elementary text book to be found in India to-day.

The book is well constructed. Opening with an outline of the development of agriculture from primitive times it deals in succession with the soil including the subsidiary subjects of tillage and manuring, the plant and how it grows, a few of the more important crops and some of the common insects injurious to agriculture. Reference to plant diseases caused by fungi and bacteria has been omitted, probably because for the proper understanding of such diseases and their causes a microscope is necessary. Considering their importance to Indian Agriculture, however, this omission is to be regretted.

The treatment of that branch of agriculture dealing with live stock and live stock products occupies about a fifth of the book. It is by no means so well done as the sections dealing with soils and crops, but one must not forget that the study of this branch of agriculture has been up to very recent times almost entirely neglected by the Agricultural Departments in India and reliable information is therefore largely lacking.

A final chapter deals in a clear manner with co-operation in its relation to agriculture, a subject not commonly dealt with in agricultural text books, but one which is nevertheless of immense importance to agricultural development.

It is needless to add that the book is sound from a scientific

standpoint. It is moreover written in a very clear and interesting manner.

L. C. C.

* * * * *

A Short School Geometry. By H. S. HALL, M.A., and F. H. STEVENS, M.A. MacMillan. 2s. 6d.

THE authors are well known writers of text-books on Elementary Mathematics. Their *School Geometry* has very deservedly held the field for more than twenty years in high schools and colleges.

The present work is an attempt to lighten the task of both pupil and teacher by bringing together in a compact form the main propositions "which make main landmarks of Elementary Geometry" and by reducing the number of such "formal propositions." Part I contains 10 problems and 32 theorems, with an introductory course of experimental and practical geometry. The arrangement here proposed is good and we have no hesitation in recommending the book to the student population.

M. T. N.

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Nooks and Corners: Lays and Lyrics. By N. MADHAVA RAO, Mysore Service. Printed at the Caxton Press, Bangalore.

MR. MADHAVA RAO is a recent and very distinguished graduate of this university, and for years we have been greatly interested in his verses. It seems a pity that he has ventured the publication of a book of poems so soon. The value of these verses lies almost entirely in the promise that is discernible here and there. Poetry needs a more mature experience, and a very much more developed power of writing, and these are likely to come within a few years. The fact that these little poems express things that every one feels is by no means against them; but the fact that thousands of people can, and daily do, express them as well or better is an argument for waiting till time makes possible a really individual expression of emotion in really good verse. As is likely to be the case with such early writing, these pages are full of very "ordinary" ideas and conventional phrases and effects, not to speak of constant flaws (incidental to first compositions in a foreign language) in idiom, rhythm and rime. Some mistakes of these kinds could have been eliminated by having the poems revised by some senior before publication: this would have excluded the "piercing call" of the planet Brihaspathi, the "song-path shrill" of the bees (Mr. Madhava Rao is always coming to grief over *sound* references), phrases like "the star-clogged skies," rimes like

"trees—is," "seas—cease," and such lines as these (written when the sense of humour was fast slumbering): "Some said she died of liver complaint," "With sweating all my clothes were wet." The trouble is that every poem in the book is an experiment, none a complete performance. When Mr. Madhava Rao has found his feet he may well write really fine lyrics. In many of these verses there are indications that he will do so. He is genuine in feeling, and though at present that feeling finds frequent expression in very hackneyed terms this is usual with early poetic productions, nor is it always the case with him. He has a delicate instinct for beauty, seen or heard, and is an intense lover of it. He has imagination, and one of the most interesting elements in his poems is the constant series of figures, some grotesque but many vivid and beautiful. He has an intimate love for nature, and the power of communicating mood or atmosphere. And despite all flaws he frequently shows a felicity of phrase and verse that indicates a real poetic gift. We give two examples of his best work: they make this a long review of a small book, but no doubt readers will be particularly interested in the first book of verse by a graduate of this university, and will be delighted by its promise. The following poem is marked by flaws and even absurdities, but the blank verse, on the whole, is very skilfully handled, and there are some really fine lines and effects.—

REVIVED.

All was dark, and, overcast with gloom,
 The world to me seemed ended. In the sky
 Were neither moon nor stars, nor breezes stirred.
 The earth and sky in total darkness lost
 Had mingled in the one perpetual sleep
 Of endless, shapeless, soundless form of death.

* * * * *

I stood

Lost in a lost world, body, mind and soul.
 But in a while a stir as of a sigh
 In faintest half-forgotten dreams half-heard
 Fell on my ears, and right in front a bloom
 Seemed dimly to uplift its dreamy face.
 I stared and saw a little laughing flower,
 And at the sight my heart began to beat
 Quicker and quicker: a gentle gale blow on:
 I looked up, and the sky was studded with stars,
 And on the margin of a shimmering lake
 The moon with wrinkled face was setting low.

A pale light crept, as dreams creep into sleep,
 Among the eastward stars: a loud cock crew:
 A bright ray shot across the hills afar—
 The earth and sky o'erflowed with light and life.

Another peom, "Widowed," is sadly spoilt by the weakness of the last four lines, but there is much beauty in the rest of it.

WIDOWED.

Her pillow with her tears is wet;
 All night unwooed of sleep she lies.
 She laughs and smiles all through the day,
 But all the night she weeps and sighs.

The evening star's white radiance brings
 Before her eyes the happy day
 When, clad in bridal garments, she
 Stood gazing on the self-same ray.

The odours of the champa groves
 Remind her of her wedding day,
 When, decked with those impassioned blooms,
 She heard the sweet lute's melting lay.

The glistening bangles jingle not
 Upon her youthful wrists and round;
 No more upon her forehead white
 The sweet vermilion mark is found.

How changed to her the world now is!
 All dark, cold, weary, joyless, void.
 Her soul within her struggling lies;
 Her hopes are blasted, life destroyed.

J. C. R.

* * * * *

The Vestibule: A First Book of English Verse for Indian Children.
 Compiled by CONSTANCE E. PARSONS, MYSORE. Printed at the
 Wesleyan Mission Press, Mysore.

ANTHOLOGIES compiled for English children are for several reasons unsuited for use in Indian schools. Background, religion and many kinds of allusion are western, and a serious hindrance to the Indian child's

enjoyment of the poetry; sombre subjects often bulk too largely; and it is assumed that beginners in English are all tiny children, whereas in India, as Miss Parsons says, "boys and girls begin English at any age from six to fourteen." She has endeavoured to find poems that are not made puzzling by reference to English customs, seasons, legends and so on; where religion is referred to it is universal; and she has provided twenty-two poems for very little children and forty-seven for somewhat older ones, though each division also contains much that is well suited to the other class. "The aim of this little book . . . is to enlarge the vocabulary, to create a sense of, and love for, English rhyme and rhythm; 'to set alight some flame in the imagination', to introduce our Indian children to 'poetry which shall sing its way into their souls,' so that from this *Vestibule* they may pass on into other courts of the House of Poetry, there to meet again, amid its peerless company, poets they here have learned to love and others whose treasures these will help them to enjoy." She has ranged very widely in the search for suitable poems, and has included (sometimes by permission and sometimes by arrangement) a large number of charming poems that have not hitherto appeared in anthologies. Among the recent poems are several beauties by Rose Fyleman; and there are two excellent lyrics by Sarojini Naidu. The collection is eminently suitable and delightful. Many of the poems in the little children's part are nursery rimes, and all are very simple: it seems to us a great achievement to have found so many verses which the smallest child can understand and which are yet musical and, in many cases, imaginative, giving just the right first stimulus to the small child's imagination and sense of song. In the second section, as in the first, cheerfulness, goodwill, music and imaginativeness have evidently dominated the choice. Thankfully we miss here the fallacy that poems, to be duly suitable for children, should be matter of fact poems. Some of the poems in the second part will be difficult for children to understand. How good this is! Every lover of poetry can remember that the richest poetic delight of his childhood came from just such poems—from the glory of poetry, not its content; from the poet's soul, to which the child is near, rather than from his thought; from melody, which soars where reason cannot. In the eager little mind as in the noble mature one the reach exceeds the grasp. We are glad to think how many children will find what they *want* in this book.

The book is beautifully printed in large type on excellent paper: a very important matter in a first poetry book. It was a delightful thought to prefix a portrait (a very charming one) of Prince Jaya of Mysore.

J. C. R.

A Short History of International Intercourse. By C. DELISLE BURNS.
Allen and Unwin. 3s. 6d.

THIS book is a fresh addition to the already overgrown stock of books on European History but it has an individuality of its own. History has often meant mostly the narration of wars and conquests and the individual exploits of heroes and great men, and where a book professed to treat of social history it often assumed a narrow nationalist attitude. In this little volume the author proposes to treat the history of Europe from a different viewpoint. He attempts to describe, though in outline, the contribution of peaceful co-operation between different peoples towards civilization. Civilised life with its exponents science, music, painting, commerce and manners is in his view international. What exactly is the contribution of one nation to the progress of its neighbours is perhaps difficult to determine, but the history of nations clearly indicates that such intercourse has influenced them at one period or another.

Beginning with the middle ages, the author sketches briefly the development in art, literature, science and commerce in the different parts of Europe and notes also the influence of the Chinese, Indian and Arab nations at different periods. The break up of the Holy Roman Empire and the Reformation brought into existence International Law, and the Industrial Age made the world a single unit and Governments developed an international organization in various departments for the common good of the citizens of many states. Then came the Great War and seemed to destroy for the time being the whole fabric of society. The world discovered how the false prophets of National Kultur had led peoples away into the paths of envy and hatred and how near the world was of a general war of extermination. It is now realised that no nation can live isolated, and the League of Nations is perhaps the greatest gain from the recent war. The League is not all it should be and experience has discovered some defects in its organisation. War and poverty have not altogether gone yet, but still the organisation of the League is a clear proof of the change of vision in world politics. The history of peace must now be a race between catastrophe and education. Vague sentiments of friendship are not such good bases of peace as the general appreciation of what we have gained from international intercourse in the past. The immediate policy of peace is to increase intercourse and co-operation between peoples so greatly that no one will be willing to forfeit the benefits derived from such intercourse.

Such in brief is the reading of European History that the author gives us. It is a sketch intended, as the author declares, to indicate the lines along which study in schools and research should develop.

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THE MYSORE UNIVERSITY MAGAZINE

SEPTEMBER 1924

EDITORIAL

THE INDIAN UNIVERSITIES CONFERENCE.—A report of the proceedings of the Universities Conference, which met in Simla in May at the instance of the Government of India, appears in a recent issue of *The Collegian*. The resolutions passed are of great interest and importance, and no doubt most of them will be given effect to when the Universities Bureau which is being formed begins its work of detailed planning and co-ordination. We may note the more important of the resolutions, most of which, apparently, were passed by the Conference after full discussion in the various committees. A provisional committee was formed, to meet in Simla immediately after the Conference to make detailed arrangements as to the establishment of a permanent inter-university board or bureau. The Conference itself, however, decided that the functions of the Bureau should be as follows:—“(a) to act as an inter-university organisation and bureau of information; (b) to facilitate the exchange of professors; (c) to serve as an authorised channel of communication and facilitate the co-ordination of university work; (d) to assist Indian universities in obtaining recognition for their degrees, diplomas and examinations in other countries; (e) to appoint or recommend, where necessary a common representative or representatives of India at imperial or international conferences on higher education; (f) to act as an appointments bureau for Indian universities; (g) to fulfil such other duties as may be assigned to it from time to time by the Indian universities.” Each university is to appoint one member to represent it on the board, and (except during the first three years, for which a provisional time-arrangement is made) each member is to hold office for three years. Pending its own decision as to place, the board is to meet at Simla, and it is to meet at least once a year and to be supported by equal contributions from the universities, save that the governments are to be requested to make a grant.—It was decided to recommend to the Government of India “that with a view to promoting co-operation among Indian universities in higher scientific studies and research and to advising the

Government of India from time to time generally with regard to the promotion of scientific research in India, a central advisory board for scientific research be constituted in India comprising the heads of scientific departments of the Government of India and a representative of science nominated by each of the Indian universities and by the Indian Institute of Science, with power to co-opt representatives of other recognised institutes of science not affiliated to any university." The work of such a board must be conducted largely by means of journals, and it was considered desirable neither to work by means of a single comprehensive journal nor to start new journals, but to endeavour "to utilise or combine existing organs of publication and develop them into publications having an all-India basis." The Government of India are to be requested to remit the customs duty "on scientific apparatus and chemicals imported for the use of universities and other approved educational institutions."

One of the first and most important things the Universities Bureau will have to do is to consider the difficult question of the mutual recognition of degrees and examinations throughout India. A motion on this subject brought out four distinct amendments, and the whole matter was referred to the Bureau. The question of the financial relation of universities with the local governments was referred to the Bureau. Another question so referred was that of the standardising of the salaries and the leave of university teachers. The Conference recorded its opinion that there should be established a provident fund for university teachers, the contribution of the subscriber being not less than $6\frac{1}{2}$ per cent, and that of the university not less than 10 per cent, of the salary ; and the question of a provident fund common to all the Indian universities was referred for the favourable consideration of the Bureau. It was resolved to represent to the University of Oxford the serious disability imposed upon Indian graduates by a new statute of that university requiring as a condition of the recognition of Indian degrees for the purposes of Oxford courses that a candidate shall have taken Latin, Greek, French or German for his degree. The Conference agreed that composition in a modern Indian language should be prescribed as a compulsory subject at matriculation or admission examinations and at intermediate examinations, but refused to include the B.A. and B.Sc. examinations in this recommendation. As regards university training corps, the Conference recommended the instituting of A and B military certificates, an overhauling of the system of granting commissions, the maintaining of mutual contact between the various university corps and of close co-operation between these and the territorial force, the allotment of larger funds, the starting of sapper companies and medical units,

and arrangements to enable the members to take part in army competitions. Then came the interesting question whether military certificates obtained as a result of training in the corps should count in some way in university examinations, and it was resolved by a majority that it should be so.

* * * *

UNIVERSITY CORPS AND COMPULSION.—The members of the Senate of Bombay University have been much exercised over the proposal to make training in the University Corps compulsory for every student who is physically fit. It is easy to understand the motive behind the proposal—the idea that every student should be made to take sufficient physical exercise and to learn discipline: and that the very persons who most require this exercise and this training in discipline are the ones who will not accept them except upon compulsion. Here is indeed a problem crushing in its difficulty. It exists in every Indian college and university. Football, hockey, cricket are played by precisely the same few people, while tennis and volley-ball rope in a very few others. In the Maharaja's College in Mysore games are played by about ten per cent of the students. The reluctance of the others is due to many causes—sometimes physical or mental inertia or both; sometimes the refusal to believe that studies benefit, instead of being hindered, when a little time is thus diverted; sometimes the influence of parents who think that their sons will earn money more quickly if they burrow into books without rest or change; sometimes the demoralising influence of a high school where no one cares an atom for games or the well-being of the boys. And indeed there are but few schools in the state where sufficient attention is paid to this matter. It is not realised how disgraceful it is to a school to turn out, year by year, a bevy of boys that can do nothing but read—and that ineffectively, as is natural to a mind housed in a stunted tardily-functioning body. When a boy from such a school comes to college he always says that he is too "shy" to begin games and make a fool of himself before the others: a very natural hesitation. No wonder Mr. Paranjpye urged compulsory military training in Bombay University. Yet this seems rather a desperate attempt to solve the problem. Compulsory drill in schools is unquestionably right, but an undergraduate is not a schoolboy. The best students would be likely to resent—and perhaps justifiably—compulsory drill, not because it is drill, or because it is military, but because it is compulsory. At the same time a purely voluntary system is foredoomed to failure. Perhaps the solution is indicated by the resolution of the Universities Conference that certificates of proficiency in military matters should count towards degrees. This in itself seems doubtful wisdom,

but the idea that the work of the corps should be in some sense *within* the curriculum is sound. It should be possible to devise a system whereby, though a man need not join the corps, it pays him to do so and to do satisfactory work there. It is a pity that such a fine thing should have to be taken on this rather low level—but it would not remain there. For not only would the students, though joining because it paid them to do so, get the good of the exercise and the discipline: they would quickly get to *like* the work for its own sake.

* * * * *

THE VISIT OF DR. AND MRS. COUSINS.—In July we had a memorable visit from Dr. and Mrs. Cousins of Madras, who came as the guests of the University and delivered stimulating lectures upon music, art and literature. Dr. Cousins brought with him a large number of Indian paintings, representative of different times and methods, and with the help of the President of the University Union and others he fitted up a delightful temporary art gallery on the upper floor of the Union. This gallery was open to students and others on six afternoons, and Dr. Cousins, with other authorities on Indian art, including the fine Mysorean artist Mr. K. Venkatappa, attended to help visitors towards a due appreciation of these paintings and of that evolution of Indian art represented in them. No labour was too great for Dr. Cousins' enthusiasm. His evening lectures were invariably preceded by long afternoons in the gallery. Nor was his work confined to the afternoons. Some of us will not readily forget a morning when he led a small party round the gallery, expounding as he went the characteristics of the various schools and artists represented. He communicated his enthusiasm, and roused an interest that will increase with future opportunities of studying Indian painting. We believe that he was thoroughly successful in attaining the great object of his visit—that of arousing in the people of this city, and particularly in the students, a new interest in the achievements and potentialities of Indian art; and it is quite possible that an era of production may be ushered in by his efforts here and in Bangalore. Dr. Cousins was busy also with the arrangement, by the wish of H. H. the Maharaja, of a gallery of Indian art in the Jagan Mohan Palace.

One could wish that in his *lectures* on painting and literature Dr. Cousins had adopted a somewhat different method and attitude. The central idea of his lectures was that of comparison between eastern and western ideas and forms in the arts, and such comparison is exactly what both eastern and western people in the audience desired; this is perhaps the most fruitful field of study open to us here to-day. But such comparison must be critical, and, if prejudiced, it must be prejudiced within

limits: Dr. Cousins, unfortunately, was uncritical, and prejudiced beyond measure. It is necessary, in such an enquiry, to be prepared to admit limitations and errors on either side. But to Dr. Cousins Indian art is perfect in every conception and at every stage, and even the highest manifestations of western art are unenlightened and somewhat foolish. In the first lecture particularly European art or art-criticism was hardly ever mentioned without a sneer, the most effective moment being that at which Ruskin was sneered at for being dead. Such treatment is not criticism, and it had two unfortunate results. First, that great majority of the audience who had not yet had the opportunity of gaining much acquaintance with European art were confirmed in a natural prejudice; and second those who *had* a reasonable acquaintance with it, and who had come with a sincere desire to learn from the lecturer about eastern art, were annoyed not by the unpalatableness but by the sheer uncriticalness of such ideas, and lost much of their confidence in the lecturer.

We may refer to one or two cases in which Dr. Cousins rejected an opportunity for rational discussion, preferring to dogmatise as to western ineptitude. He referred to the Indian method of representing divinity by the uniting in one symbolic figure of parts of various animals, the suggestion of the one universal life being thus secured. We all agree as to the nobility of this idea. But why should Dr. Cousins imply that it is *stupidity* on the part of western artists to seek to represent the deity by means of an idealised human form? Is it *stupid* to conceive that the majesty of the Almighty can best be suggested by the single means of His highest creation? If comparison is in view there is matter for argument here, but certainly none for contempt, and we should be sorry to think Dr. Cousins blind to the spiritual import of Greek statuary and of European paintings of the divine. It may be remarked that Dr. Cousins actually suggested that Greek sculpture depended largely for its effect upon sheer size: an idea somewhat ludicrous to other students of Greek sculpture. On the other hand, when emphasis is secured by means of disproportionate size in Indian painting Dr. Cousins warmly commends the idea! And here is a second point where *discussion* would have been profitable. Dr. Cousins speaks very slightly of perspective, simply because in many Indian paintings it is not observed. Now, perspective is the nearest possible approach to fidelity in the representation of the external. Where perspective is deliberately rejected it is because of a desire for symbolism instead of representation. The question is, therefore, how far art ought to be representational, and how far it ought to be or may be symbolical. Dr. Cousins conceives that pictorial art is not injured but is made more profoundly and widely true by deliberate departure from representational fidelity—not

merely by such departure as is involved in the selective and idealising processes of every kind of art but by definite falsification so far as external appearance is concerned. In western art tradition nothing is given to the eye that is incredible to it as an actually visible scene : no symbolising purpose is considered to justify a portrayal that is inconsistent with visible nature. Yet how absurd it would be to suggest that western art is merely photographic ! It penetrates through the faithfully observed real to the ideal reality and triumphs in the suggestion of the spiritual *through*, not by violation of, the externally real. We believe that such fidelity is a just limitation of pictorial art. There is of course a symbolic art, concerned with the conveying, through beautiful and subtly related forms, of abstract conceptions, and such an art is an excellent servant of religion or philosophy. But is it not a secondary sort of art ? A work of art which appeals to the soul *through the eye* is definitely related to the divinely-created visible. It may idealise the particular visible simply by penetrating to the life within it, but it cannot *contradict* it.

Faithfulness of representation is to be found in the work of many of the best Indian artists, and we believe that its recognition will be an essential principle of the further evolution of Indian art. Dr. Cousins, however, not merely exalts purely symbolical painting, in the praise of which, within limits, we agree with him, but defends even crude forms of violation of external truth. We all recognise certain features of early European art as primitive and undesirable, but to Dr. Cousins nothing whatever in Indian art is primitive. If, for example, a group of courtiers is represented, gathered round a king, and the kingliness of the latter is indicated, regardless of perspective, by his disproportionate size, Dr. Cousins considers this a highly desirable means of indicating reality of importance. Surely such a presentation, apart from its falsity to the external, is unjustifiably mechanical, not to say materialistic. It is by *grouping*, and by the subtle representation of the *kingly* in the king, that the desired effect can rightly be produced. A very interesting modern example of the production of an effect by the deliberate violation of external reality is found in Mr. Venkatappa's painting in which the artist himself is represented as forsaking painting and sculpture for music. The new dominance of music in his mind is indicated by the enormous size of the *vina*. The painting is a most exquisite one, and one to which the much-abused word "masterly" can justly be applied. But does not its method show the unfortunate results of such doctrines as we heard preached by Dr. Cousins ? The change which is the theme of the picture is represented by symbolism of a purely mechanical kind—the rats gnawing the disused canvas, the cord shutting off the now forsaken sculpture, and

dominating all the huge vina, before which the artist is kneeling. The subject is human and spiritual. It concerns the soul of the artist. The size of the vina is merely an annoying and distracting distortion. It is too *easy* to produce this sort of thing. It is hard to represent a spiritual struggle, and there is no attempt at this in the picture. It might be replied that this picture is humorously conceived, and we hoped that this was so ; but, to judge from the comments of Dr. Cousins and other interpreters, it is considered as a quite serious portrayal of a spiritual experience. This artist's work in general, however, does recognise the value of fidelity to external fact, and we believe that a conspicuous part in the furtherance of Indian art will be played by this Mysorean.

A similar bias, rejecting fact and reason, is apparent in Dr. Cousins' references to literature. To him the western mind is strictly compartmental : it cannot conceive the identity of the creative spirit behind all the details of nature, misses therefore the identity of the arts, and can offer no emotional response to philosophy. This idea of the utterly specialised nature of European processes receives its inadvertent *reductio ad absurdum* in the words of Dr. Cousins himself : " Scott and Byron sang the romance of the physical and neural aspects, Keats the æsthetical, Wordsworth the reflective, Coleridge the occult, and Shelley the mystical." These words are not from a lecture but from Dr. Cousins' summary, but they are as indefensible there as in a lecture. What curious atomic fragments of men all these great poets must have been !— There is not one of them but had a far wider responsiveness and spiritual experience than any one of us in that lecture hall, and this curious pigeon-holing of great souls by the lecturer is a thing that we cannot explain in one who is presumably acquainted with their work and is himself so fine a poet. In the University we seek to enable even the youngest of our students to realise that the truly great writer of *any* nation is profoundly conscious of the one spiritual reality. It is difficult to say which of these limitations is the most ludicrous : that of Keats to the æsthetical or Wordsworth to the reflective is striking enough, but probably that of Coleridge to the occult bears the palm. Elsewhere in the lectures we had further references to some of these poets, and an elaborate treatment of Shelley. Shelley was in some respects akin to the eastern type of poet, and Dr. Cousins assigns to him almost every poetic and intellectual virtue—forgetting that, unlike the Indian poets, Shelley was poor in intellectual power. But Wordsworth—for example—meets with very different treatment. He had his moments, however, when he "glimpsed" truth that has been seen quite steadily by "A.E.," by Yeats and by Tagore! Now of these three Tagore is the only poet who can for a moment be compared with Wordsworth in steadiness and scope

of spiritual vision. A.E. and Yeats are admirable poets, but they are small indeed compared with Wordsworth; and in this as in so many of his literary judgments Dr. Cousins is ignoring perspective, just as he believes it may rightly be ignored in art. It is apparent that in his judgments of most western poets as of western artists vigorous prejudice has preceded and precluded any really *intimate* acquaintance, for his statements about them are not such as could proceed from intimacy. The case is similar when he speaks of literary criticism. Among western critics, we are told, feeling is the test of literature. This is not even a disputable statement : it is simply a mistake. Our students of literary criticism know that while the statement is true of certain English critics it is quite untrue of others, equally eminent and influential. Pater is one to whom it is applicable, on the whole ; yet Dr. Cousins is peculiarly unfortunate in his references to Pater. He declares that the " concrete mind " of Pater was " bewildered " by the overlappings of one art upon another. It is only the Indian that can understand—or at any rate has understood—that all beauty, and all expression of beauty, are manifestations of the cosmic soul. Really Dr. Cousins seeks to make the Indians in his audience very contemptuous of their fellow-creatures! Why, not to speak of poets, artists, critics, there is not an ordinary lover of fine literature, in the west or anywhere, who does not realise the universal presence of this cosmic soul, and any person who denies the animating presence of this consciousness in English literature is simply closing his mind against that literature. In saying such things Dr. Cousins limits very sadly the western operations of that cosmic soul, which apparently has blundered unconsciously in its European manifestations! As for Pater, he is distinguished above most other writers, western or eastern, by the very clearness and intensity of his realisation of the cosmic soul as manifested in all the arts. He beyond others was inspired by the resulting consciousness of the identity between the arts. He—lover of metaphysic as well as literature—is precisely the best example to disprove Dr. Cousins' contention that the westerner is " incapable of emotional response to philosophy." And finally, of all epithets that could be chosen for Pater's mind " concrete " is the most notably inapplicable. If Dr. Cousins' hearers, instead of accepting this facile dismissal of Pater, will apply their minds to the exceedingly difficult study of him, they will find him a kindred spirit.

The " orientation " of western art, literature, criticism and thought, as Dr. Cousins expounds it, is entirely mythical. The impression conveyed by him was this.—Through all these centuries the western mind has lived and moved in darkness, the eastern in unsullied light. Western thought, literature, art, criticism has proved its own futility, and is now " groping " towards the eastern illumination. The westerners, apparently,

have always been half-witted creatures, and still more conspicuously stunted in soul, and it is quite beyond them to find out for themselves anything that is really worth while. This is precisely the gist, without any distortion, of Dr. Cousins' message to our students as regards the west. It is not fair to students to inculcate so ludicrous a doctrine, playing thus falsely upon their sincere love of their own country. The world does not contain one dark and one illuminated hemisphere. Each cultivated people, east or west, has its own share of the universal light, and each also has its own spiritual discoveries, and the sharing of these discoveries among all is an incalculable service. But nothing will ever easternise the western tradition, just as nothing will ever westernise the eastern tradition. A striking example of Dr. Cousins' error is found in his references to Cubism. This type of art he evidently considers the finest and most promising development of modern European art. It is akin in spirit (he thinks) to Indian art. Thus through Cubism European art is now advancing into the eastern light. As a matter of fact the Cubists are a small and discredited sect, entirely out of relation to the main and characteristic developments of European art. Further, to compare Indian art to Cubism is most unfair to the former. For Indian art is same and disciplined, while Cubism is mere freakishness and decadence. Dr. Cousins was quite angry with western artists for their "egotism": it was a distinct weakness in Leonardo that he signed his pictures! Yet he praises, in praising the Cubists, work of the most outrageously individualistic kind. It is all the same doctrine—in anything that even seems to smack of the east, there lies the hope of the west!

There were many of Dr. Cousins' hearers, and the most notable among them were not westerners, who deeply regretted Dr. Cousins' attitude. We seek a mutual understanding between east and west and a mutual influence for good. Dr. Cousins did us all great service in helping us to understand eastern art *in itself*. But the mutual co-operation between east and west which we desire is dependent upon mutual respect, and it is hindered by a method that seeks at every step to promote the contempt of one hemisphere for the other.

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MRS. COUSINS ON INDIAN MUSIC.—Mrs. Cousins gave two absorbingly interesting lectures on Indian music, and the duty of educational authorities as regards music. With an exceptional mastery of the theory and practice of European music, Mrs. Cousins has set herself to the study of the Indian forms. Despite the great differences between Indian types of music, they are essentially one in the nature of their differentiation from European types, and Mrs. Cousins made this difference very clear. She

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dwell on the horizontal elaboration of the former in melody and rhythm, and the vertical elaboration of the latter in harmony. Music reveals the soul of a people more certainly and more subtly than any other art, and in music the differences of racial temperament are so emphasised that, as a rule, though an inhabitant of one part of India or of Europe can understand and respond to the music of another part, the Indian and the European almost invariably find—at first—an extraordinary strangeness in each other's music. The more we seek to understand each other's music the better we shall understand each other. A little musical experience goes much further than any amount of mutual explanation; for the differences are too subtle for words, and unity between east and west can be achieved only through a sympathy that words cannot express. Thus Mrs. Cousins' work towards musical sympathy is as valuable as her other great work on behalf of the women of India. Extraordinarily interesting, too, are the *musical* developments which we may see when eastern and western music begin really to act upon each other. What will western music achieve if it adds to its resources even one or two of the many Indian modes, and adds to their melodic and rhythmic significance the further power and subtlety of harmony? And what if harmony begins to play a part in Indian music? The latter is a peculiarly interesting and difficult problem. We have heard of attempts to harmonise Indian melodies which had results very pleasing to European ears but by no means pleasing to Indian. Obviously a harmonising of Indian music is a failure if it does not please the Indian ear, for it must then be at variance with the spirit of the melody. It seems to us, indeed, that this *post*-harmonising can never succeed. Probably the melody and the harmony must both be part of the one creative conception of the composer. The import of a melody called into being by *itself*, as a full expression of the composer's feeling, is bound to be distorted in some subtle manner if harmony be added, and this is why the *addition* of harmony is displeasing to the Indian critic.

Mrs. Cousins left an *educational* message which cannot be challenged: the only proper response is to seek to do as she says. She dwelt upon the strangeness of the fact that in a country where the love of music is so eager and well-nigh universal the *cult* of music is so narrow. Skilled singing or playing is confined to the few, musical performance being looked upon, in general, as a professional matter. (We cannot quite remember whether she referred also to the over-indulgence in technical gymnastic; a natural result of professionalism.) Her message was simply that every boy or girl in every school should be taught to sing and to read music, some simple form of notation being devised for the latter purpose—for example some slight modification of the western staff

notation system. In her own supervision of musical teaching Mrs. Cousins has insisted that every tune sung should be written down on the blackboard. Some system of notation is absolutely necessary if Indian music is to be universally taught and if particular compositions are to be accurately communicated and handed down. But Mrs. Cousins' main point is that hardly anything can do so much good to the ordinary, average Indian child (or grown up person, for that matter) as a real acquaintance with music. For music means the culture of both right feeling and right discipline: he who is dominated by true music cannot but be true and good. Mrs. Cousins pointed out that in practically every other great country every child is taught to sing, and we should certainly lose no time in introducing this practice in Mysore. Mrs. Cousins referred also to the fact that the great universities of all countries give degrees in music. This no doubt we must postpone until the system of teaching music in schools has developed; but as soon as the students are ready we shall have to introduce this also.

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THE REPRESENTATION OF INDIAN ART IN ENGLAND.—The India Society is taking advantage of the interest aroused in the British public by the exhibits (over a hundred and fifty in number) in the Indian gallery of the Palace of Arts in the Empire Exhibition at Wembley. A conference held at Wembley several months ago urged the importance of promoting throughout the Empire the study and appreciation of the æsthetic culture of India; and now the Society is appealing for funds to acquire works representative of the leading schools of modern Indian art for permanent exhibition in London. The paintings are to be selected by a sub-committee of the India Society which includes Sir Thomas Arnold, Mr. Laurence Binyon, Mr. E. B. Havell, and Professor Rothenstein. Subscriptions are being received at the office of the India Society, 3, Victoria Street, London, S.W. 1.

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MR. SWAMIKANNU PILLAI'S LECTURES.—Diwan Bahadur L. D. Swamikannu Pillai, President of the Madras Legislative Council, who has for some years made a study of Indian astronomy in its bearing upon the interpretation of inscriptions and other historical records, has just given a series of university extension lectures on the subject in Mysore, besides delivering a single lecture before the Mythic Society in Bangalore. He showed that this study—a very recent development of Indian historical research—is of very great importance; and it was clear from the examples given that in many cases a date otherwise unfixable can be deduced with

certainty from astronomical data. Mr. Swamikannu Pillai very generously gave these honorary lectures with the idea both of rousing general interest in the subject and in particular of stimulating members of the University to help in carrying on the laborious and endless research involved. The lectures were of peculiar interest in many ways. To the great bulk of the audience the data and methods of Indian astronomical calculation were quite a new field of study, and apart from historical applications the exposition of the various eastern and western systems of time-calculation has been of great value. The evenings, unfortunately, were not clear enough for an open-air demonstration of the stars, which Mr. Swamikannu Pillai sought to give to the students, but we hope to have this when he returns to give a second course of lectures.

DANTE'S DIVINE COMEDY (IV).

JUST before the dawn of Easter Wednesday on the threshold of the Earthly Paradise Dante dreamt of *Leah*, a young and lovely lady gathering flowers in a meadow and singing of her sister *Rachel*. These two were the Old Testament types of the Active and the Contemplative Life (just as Martha and Mary are, in the New Testament). Jacob did not win these daughters of Laban to wife without previous long and toilsome service. Even so the mount of Purgation has now led up to the Earthly Paradise of Action—to serve as a stepping stone to the Celestial Paradise of Contemplation. The active life alone can be *perfected* in *this* life on earth. Heaven is necessary for the full perfecting of the contemplative life.

Dante enters the Garden of Eden from the West facing the rising sun—Virgil is still his companion but no longer his guide. I cannot rehearse all the beauties of this Garden. They are set out in the musical stanzas of the twenty-eighth Canto of the Purgatorio. On the opposite bank of a stream that flows pure-under the forest shade he perceives a lady gathering flowers and singing as if enamoured. This is Matilda, the genius of Eden—the Leah of Dante's dream—the Christian type of the Active Life in the Paradise of Earth. I shall not stay to discuss whether or no Dante was thinking of the famous Matilda, Countess of Tuscany who, in the early years of the twelfth century, after a life-long devotion to the Papal cause, bequeathed great possessions to the Holy See. She discourses to the poets on the climate and the productions of Eden—to them a mystery since they are above atmospheric conditions. She explains whence flow the twin streams of *Lethe* and *Eunœ*—the one of which washes away all memory of sin and the other restores the memory of all righteous doing. She suggests that behind the dreams of the classical poets who sang of the Golden Age lay some confused tradition of the state of innocence in Eden. A smile of recognition lightens the faces of Virgil and Statius.

As Dante advances along the bank of the stream Matilda calls his attention to the approach of the Divine Pageant—the procession of the church militant—"And lo, a sudden brightness flooded on all sides the great forest¹ The air in front of us under the green boughs became even as a flaming fire to us—and the sweet sound was heard as a

chant."¹ . . . The brightness was that of seven golden candlesticks all aflame ; the melody was the Hosannas of those that followed them . . . and I saw the flames advance, leaving the air behind them painted and of trailing pennants they had the semblance, so that the air above remained streaked with seven bands of rainbow colours."² Beneath so fair a sky came four and twenty white-robed elders two by two—crowned with lilies—and singing Mary's praises. Between the four living creatures, described by Ezekiel and S. John, that followed the elders, came a triumphal chariot, more glorious than the Sun, upon two wheels—drawn by a Grifon, half-lion and half-eagle, whose golden wings stretched up far out of sight between the seven rainbow coloured pennants that formed a canopy. By the right wheel were dancing three maidens clad in white, green and red—symbolising the three theological virtues Faith, Hope and Love ; by the left wheel dance four in purple robes—the cardinal virtues—triple-eyed Prudence leading her sisters. The seven candlesticks are the gifts of the Holy Spirit ; the four and twenty elders crowned with the lilies of faith were either the Patriarchs and Prophets or the books of the Old Testament. The four living creatures were the Four Evangelists or their Gospels

The Grifon was Christ himself in his human and divine natures. Behind the chariot of the Church came seven more elders white robed but crowned with red flowers, emblems of Love. These were the writers of some of the remaining books of the New Testament.

Then came the physician Luke and S. Paul with the sword of the spirit, glittering and sharp. Then another four of lowly semblance the writers of the minor epistles—Peter, James, John and Jude and “behind all an old man solitary, coming in a trance, with vision keen”—S. John—the seer of the Apocalypse. At a clap of thunder the procession halted and Dante saw upon the chariot amidst a hundred angels singing and scattering flowers, Beatrice herself clad in the mystical colours of red, white and green and crowned with the olive of wisdom and of peace over her snow-white veil.³ Dante trembled and his spirit felt the mighty power of ancient love.

“ I turned me to the left with the trust with which the little child runs to his mother when he is frightened or when he is afflicted—to say to Virgil : “ less than a drachm of blood is left in me that trembleth not. I recognise the tokens of the ancient flame.” But Virgil had left us bereft of himself—Virgil, sweetest Father, Virgil to whom for my weal I gave me up ; nor did all, that our ancient

¹ *Ibid* 34.

² *Ibid* 73.

³ *Vide for the Symbolism Gardner Dante “The Temple Primers.”*

mother lost, avail to keep my dew-washed cheeks from turning dark again with tears.”¹

“Dante, for that Virgil goeth away, weep not yet, weep not yet, for thou must weep for other sword.”² . . . “Look at me well; verily am I, verily am I Beatrice. How didst thou deign to draw nigh the Mount? Knewest thou not that here man is happy?”³

Here was Beatrice, his ideal, recalling to Dante's mind the memory of how by his backslidings after her death he had insulted and outraged her. His heart was frozen with its own bitter reproaches but when he hears the pleading intercession of the angels he melts into a flood of tears. But Beatrice is still unbending and, turning to the angels, she rehearses the promise of Dante's youth and the unworthiness of his manhood—the pursuit of false good to which he had given himself—her own unavailing pleadings with him and his fall so deep that naught, save the vision of the region of the lost souls—(won for him by her prayrs and tears,) could avail to save him. “God's high decree would be broken, if Lethe were passed, and such viands were tasted, without some scot of penitence that may shed tears.”⁴ In Dante's conversation with Forese Donati, he made it appear that his aberrations were not altogether the following of false philosophy—as his allegorising of them away in his *Convivio*, wherein he expounds the meanings of his Canzone or Odes, seemed to indicate. However, be these backslidings from the ideal life what they may, Dante's repentance is so complete that he falls senseless and Matilda draws him through Lethe; after which the four cardinal virtues lead him to the mystic Grifon and in re-pone to the song of the three theological virtues which perfect man supernaturally—Beatrice, the august impersonation of Revealed Truth, at last unveils her countenance. “O glory of living light eternal.”⁵ Never was poet who could utter in words the surpassing splendour!

The procession moves on with angelic song, northward toward the noon-day sun; Matilda, Dante and Statius following after the right wheel. They approach the tree of the knowledge of good and evil which stands for obedience and therefore represents the Empire. “This tree is despoiled of flowers and of other foliage in every bough.” The Empire is bare and destitute of virtue till the Grifon comes to it—who plucks nothing from it. Let the Church follow the divine example and usurp none of the temporal rights of the Empire. The Grifon binds the pole of the chariot to the tree; the Cross—according to legend made from this

1 *Purgatorio* (Temple Classics edition), XXX, 43.

2 *Ibid* 55.

3 *Ibid* 73.

4 *Ibid* XXX, 142.

5 *Ibid* XXXI, 130.

tree—is the bond of union of Empire and Church; and the desolate tree breaks out into fresh spring beauty. Here slumber falls upon the poet from which he awakes to find Beatrice bereft of her glorious escort except the seven maidens bearing the seven tapers. Here let me quote Professor Gardner's¹ succinct narrative of what follows.

"In a new series of visions Dante beholds the sequel; he sees the conflict of the past, the corruption of the present, hearkens to the hope of the future. The persecution of the Church by the early Roman Emperors is followed by the inroad of early heresies; and the Donation of Constantine by the rising of the Dragon of Schism or Simony. By mere assumption of secular power and dignities the chariot (of the Church) becomes monstrously transformed, and shamelessly usurped by the harlot, who represents the corrupt ecclesiastical authority enthroned where Beatrice should be, or a false and degraded theology based upon the Decretals instead of the true Divine Science of the Scripture and the Fathers. By her side a giant appears, who after alternate caressing and scourging of the usurper, unbonds the transfigured chariot from the tree and drags it away through the forest—symbolical of the interference of the royal house of France, ending in the transference of the Papacy from Rome to Avignon."

The seven virtues in alternate strains now proclaim, with tears, that the forces of the world have found their hour; and Beatrice declares that though her glory will for a time be withdrawn from them, it is but for a season. As they move on Beatrice hints at the political Messiah who shall restore the due relations of Church and State and purify them both. She discourses on the sacredness of the Tree of Empire—whoever strives to usurp the imperial prerogatives sins against God even as Adam sinned in eating the fruit of the forbidden tree.

The sun is now in high heaven and they reach a fountain whence the twin streams flow—the fountain of the Grace of God. Matilda leads Dante and Statius to drink of Eunœ which quickens dead virtue and restores memory of every good deed in those who have drunk of Lethe which takes away the memory of sin.

"I came back from the most holy waves, born again, even as young trees renewed with new foliage pure and ready to mount to the Stars."²

Dante's Paradise consists of the nine moving heavens, according to

Ptolemaic astronomy, crowned by the tenth
Structure of Paradise motionless and divinest Empyrean heaven—

"as holy Church teacheth, who may not lie."

This is the real abode of the blessed spirits. This Empyrean is the true

¹ Gardner *Dante "Temple Primers"* p. 118.

² *Purgatorio XXXIII* 142.

DANTE'S DIVINE COMEDY (IV)

intellectual Paradise for which the lower heavens are merely sensible preparations. This, as Dante writes in the *Convivio* (II 3, 4) "is the sovran edifice of the world wherein all the world is included and outside of which there is nought; and it is not itself in space, but was formed only in the First Mind." All the blessed ones actually dwell in the highest heaven but manifest themselves to Dante as he ascends in each successive heaven that he may understand the lower or higher degree of that vision of God which constitutes beatitude. For, as star differeth from star in glory, so Saint differeth from Saint. Yet in all the Saints, beatitude is perfect according to the capacity of each. In their apparent or representative planetary heaven-abodes the Saints show themselves swathed in light, flashing brighter with every accidental increase of joy or love; in their real seats in the Rose of the Blessed they are seen as they truly are—as glorified spirit-likenesses of what they were on earth.

According to Mr. Wicksteed¹ the *Paradiso* is also constructed on the number scheme of 3, 7, 9, 10. The *three-fold division* is of the planetary heavens into those below the Sun, the Sun, and those above the Sun. These subdivide into seven heavens. Below the Sun are the Moon, Mercury and Venus. Then we have the Sun and above the Sun we have the heavens of Mars, Jupiter, Saturn. Add the heaven of the Fixed Stars and the crystalline heaven or the *Primum Mobile* and we get *nine* heavens. These are all in space and in these the spirits are, as we learnt above, only *manifested* to the poet. Lastly we must add the Empyrean—a heaven entirly different from the rest for it is the heaven of Light and Love beyond Space and Time, wherein dwell God, His angels and His redeemed.

The sun—"the great luminary" is the heaven of *Prudence*, chief of the four moral virtues. The heavens above the

The moral scheme of Sun are Mars representing Fortitude, Jupiter representing Justice, Saturn representing Temperance. These four heavens then represent the

practice of the Four Cardinal Virtues aided by Divine Grace. But what are we to make of the three heavens below the Sun namely, the *Moon*, *Mercury* and *Venus*? The usual view is that they represent some imperfection in the practice of the theological virtues. Thus in the Moon we have *inconstancy* or want of unshaken Faith, in Mercury, we have ambition or partial substitution of earthly for heavenly Hope; in Venus we have a partial substitution of earthly for heavenly Love (charity). But Professor Gardner in his "Barlow" lectures of 1920 suggested to his audience that, to make the scheme more symmetrical, we take these three heavens below the Sun to represent Fortitude, Justice and

¹ *Vide note at end of Paradiso (Temple Classics Edition.)*

Temperance as imperfectly practised in contrast to their perfection in the three heavens above the Sun and place the theological virtues, Faith, Hope, Charity as Supernatural Virtues in the eighth sphere. That somehow or other these three heavens below the Sun represent some imperfection in the practice of either the theological virtues or of the cardinal, (i.e., the moral) virtues is clearly indicated by the mediæval belief that the conical shadow cast through space by the earth reached as far as the sphere of Venus.

That these heavens are associated with the virtues—according to either of the two schemes above—indicates that, according to the particular type of moral warfare individual souls waged on earth, so they earned spiritual blessedness of varying tone and colour in heaven.

Of the other heavens we shall speak later on. Each of the nine moving spheres is assigned to the care of one of the nine angelic orders—

Angels, Archangels, Principalities.

Powers.

Virtues, Dominations, Thrones.

Cherubim.

Seraphim.

It is through them that God disposes the visible world, “In the hands of the celestial intelligences the heavens are as hammers, to stamp the Divine ideas upon material creation and to carry out the Divine plan in the Government of the universe.”¹ The undivided power of God is differentiated through the various heavenly bodies and angelic agencies. Each moving heaven is an “alloy” or union of the heavenly substance and the angelic virtues. The “mingled virtue” that shines through the heavenly body is the personality of the angel mingled with the creating and inspiring power of God. As the vital principle manifests itself diversely in the several members of the body, so we have star differing about from star in glory and so, when Beatrice answers Dante’s question the dark patches in the moon, she explains that this is the true cause of them and not as Dante supposed—rarity of the moon’s substance.²

By means of the influence of the stars these angels have impressed certain men with their own peculiar virtues, so that they may co-operate on earth in their work. Dante himself was born under the constellation of the Gemini—the twins—in the eighth sphere ruled by the Cherubim, who represent God’s wisdom since their name signifies plenitude of knowledge. They see most into the profound mysteries of the hidden things of God and spread the knowledge of Him upon all beneath them.

¹ Gardner Dante Primer, also Paradiso II, 127-129.

² Ibid : II, 126-144.

By their inspiration Dante co-operated in their work by writing the Divine Comedy.

In as much as Beatrice stands for Divine Science or Revealed Truth
"in her countenance appear things which show
Manner of the Ascent us the joys of Paradise the place
and the gradations there- wherein this appears is in her eyes and her
of. smile." Thus Dante wrote in the *Convivio*
(VII 15). The means, therefore, by which Dante

was uplifted through the heavens was by fixedly gazing into the eyes of Beatrice—except in one instance as we shall see later on. "The ascent," writes Professor Gardner,¹ "is marked by the increased loveliness of Beatrice, by the increasing brilliancy of the blessed spirits—by their ever increasing ardour of love towards the poet and by the growing spirituality of the matters discussed in each sphere. Each of the nine lower heavens represents a step higher in knowledge, in love, in blessedness until in the true Paradise the soul attains to perfect knowledge, supreme love and infinite blessedness in union with the First Cause, in the beatific vision of the Divine Essence."

At noon in the noblest season of the year when the sun was in the equinoctial point, Beatrice gazes fixedly into the sun. Dante follows her example and sees the light glowing as if God had made a second sun. He turns once more to Beatrice who is still gazing heavenward and then his human nature is transmuted to the quality of heaven and he knows not whether he is still in the body of flesh or no. They pass through the sphere of Fire and hear the heavenly harmonies, the music of the spheres—for poetical reasons, as I suppose, Dante herein differs from his master Aristotle. Dante is perplexed to know how he can rise, contrary to gravitation. Beatrice tells him that what really needs explanation is not how man can rise to God—his true place—but how he can depart from Him. "To all created things God has given an instinct, an inclination by which, in different ways according to their nature, He draws them all back to Himself over the great sea of Being. Rational souls alone can resist the order of the universe (by using their Free Will to sin) but the purified soul inevitably mounts up to find its rest in union with the First Cause."²

They reach the moon and inconceivably penetrate into her substance without cleaving it. "Within itself the Eternal Pearl received us, as water doth receive a ray of light through itself uncleft."³ Even so did deity penetrate into humanity in Christ—a mystery which in heaven shall be seen as axiomatic truth. By his question and erroneous opinion about

1 Gardner *Dante* "Temple Primer."

2 Gardner *Dante* Primer.

3 *Paradiso* II, 34-37. "Temple Classics" edition.

the spots on the moon and by Beatrice's mystical interpretation of this natural phenomenon Dante is made to realise—as the first step in his intellectual ascent—how inadequate man's senses are. Within this Eternal Pearl appear faint but divinely beautiful forms of women—the souls of those who had yielded to violence and broken their solemn vows. Piccarda Donati, sister of Corso and Forese tells Dante how her brother Corso had torn her away from the cloister and married her to a man whose alliance he sought. She points out the Empress Constance, mother of Frederic II and grandmother to Manfred of Sicily, torn like herself from the convent's shelter. Piccarda explains however that each soul in heaven rejoices in the whole order of which it is part and therefore desires no higher place than is assigned to it—for such desire would violate the law of love and therefore the harmony of heaven and with it the joy of the unduly aspiring soul itself. She sums it all up in that famous line

“in la sua voluntate è nostra pace.”

In His will is our peace.

Beatrice is called upon to solve many questions that arose in Dante's mind; and first about the true abode of the Blessed—for Dante feared lest perhaps Plato was right in saying that men's souls come down from the planets connatural with them and return thereto. This would be admitting that the planetary influences were all powerful and would thus be fatal to freedom of the will—the necessary postulate of morality. Then Beatrice has to explain in what way Piccarda and the others had imperfection of will. How can they be truly blamed if they were compelled to do what they did by superior force? Following the Aristotelian psychology of free and enforced action Beatrice explains the difference between the absolute will and the relative will. Then follows a discourse concerning vows and the limits of Holy Church's dispensing power. These questions, relating to the salvation and guidance of individual souls and to the gift of Free Will, greatest gift of God's bounty, are appropriate questions in the Heaven moved by the angels. For they are assigned as guardians to individuals and are the bearers of the tidings of God's bounty to men.

Gazing on Beatrice, Dante found himself in the second Heaven,—the heaven of Mercury

“ and even as an arrow which smiteth
the targe ere the cord be still, so fled
we to the second realm.”¹

In this second sphere appear the souls of those who did great things for humanity or for special nations but who were actuated by mixed motives.

"This little star adorneth her with good spirits
 who were active that honour and that fame
 might come to them
 and when hereon desire, thus
 swerving, leaneth, needs must the
 rays of the true love mount upward
 with less life."¹

One of these blest souls addressed Dante directly. It was the Emperor Justinian, law-giver of Rome—the true significance of whose Empire lay in its imposing and fostering the arts of peace. Justinian traced out the progress and achievements of the Roman Eagle from the days of Aeneas to those of Augustus and showed how divine Providence established the sway of the Roman people over all the earth and caused the Roman Empire to be the instrument of Christ's atonement on the cross, for the sins of the world, thereby showing forth its sanctity. "Later," says Justinian "it ran with Titus to do vengeance upon the vengeance of the ancient sin"² That is, the Emperor Titus destroyed Jerusalem and thus avenged the death of Christ whose death as the atoning victim for the entire race of man is "*the vengeance of the ancient sin.*" Justinian proceeds to show how the Empire had championed the Church which had been born under its protection. 'It is equally wicked, therefore, to think of opposing the Empire or of turning it to factious purposes. Both Guelfs and Ghibellines are traitors and sowers of discord. In the second book of the *Monarchia* Dante shows how Christ sanctioned the Roman authority by His birth and by His death. Pontius Pilate was the Roman Governor of Judea who condemned Him. One would expect the Christian Dante to have placed him in Hell, but he is nowhere to be met with in Hell. This odd fact can be explained if we examine carefully Dante's peculiar theory, which is as follows:—The sentence of death pronounced by Pilate upon Christ so far as it was a sentence upon human nature collectively present in Him, was a just sentence, pronounced by a duly authorised official. But so far as the death of Christ was the work of the Jews and was wrought on the whole person of Christ, human and divine, it was the supreme outrage for which Titus the Emperor took vengeance upon Jerusalem. I pass over the story of the other historical personages mentioned in this Heaven. The Saints vanish with hymns of triumph. Beatrice expounds the mystery of man's redemption by the Incarnation and the Crucifixion—the supremest work at once of Divine Justice and Divine Mercy. Dante was herein most conspicuously influenced by the famous treatise *Cur Deus Homo* of

¹ *Paradiso VI*, 112-118.

² *Paradiso VI*, 91-93.

Anselm, Archbishop of Canterbury. Beatrice also touches upon the creation thus:—"The elements and their compounds are made not direct by God but by angels, who also draw the life of animal and plant out of compound matter that has the potentiality of such life in it, whereas 'first matter,' the angels, and the heavens are direct creations of God; and so were the bodies of Adam and Eve which were therefore immortal save for sin; as are therefore the bodies of the redeemed who are restored to all the privileges of unfallen man."¹

This Heaven of Mercury is ruled by the *Archangels* whose function is to guide and protect particular nations. They are also charged to announce messages of special import and sacredness. The souls that appear in it and the great theological questions discussed are thus clearly appropriate to this sphere.

The ascent into Venus, the third heaven, insensible at the moment, was afterwards revealed to Dante by the increased beauty of Beatrice. All angels, heavens and blessed spirits are twined in one concerted cosmic dance; this dance the spirits in Venus leave to minister to Dante, singing Hosanna as they come. They are the souls of purified lovers, brilliant lights moving in circles and hidden in the rays of their own joy. One of them reveals himself as Dante's friend Carlo Martello, King of Hungary, and once heir to the Kingdom of Naples. The interesting part of his discourse is the explanation of how—as Dante puts it—"of sweet seed can come bitter"—that is, how of noble parents there can spring degenerate children. The answer is that the planet under which nativity takes place counteracts and modifies by its influence the otherwise unvarying rule of the resemblance of child to parent. Natural heredity is overruled by celestial influences. In assigning a man's place in the world we must not give heed only to his hereditary position but to his natural gifts.

I pass over the other historical and biblical characters except to say that Folco of Marseilles, poet and prelate, tells Dante that the blessed ones may remember their earthly sins but they do so now not with sorrow but with joy, because they remember the sin only as the occasion of God's bounty in uplifting the fallen one again into his true element. Dante is led to denounce the loveless avarice of the Pope and his cardinals. "This third heaven is moved by the celestial principalities, whose office is to influence earthly rulers to imitate the principality of God, by uniting love with their lordship."²

The Fourth Heaven, that of the Sun into which Dante passed imperceptibly is the Heaven of *Prudence*. It is ruled by the *Powers* who represent Divine Power and Majesty, combat the powers of darkness and

¹ *Vide Argument Canto VII, Paradiso (Temple Classics edition).*

² *Gardner Dante Primer.*

DANTE'S DIVINE COMEDY (IV)

stay diseases. It is here that the Great Doctors and Teachers of the Church appropriately manifest themselves in two circles, as it were brilliantly flashing garlands, above Dante and Beatrice. Here are the great ones of the two famous orders of Mendicant Friars—the Dominicans and the Franciscans. They had led the armies of Christ against the powers of darkness and healed the spiritual diseases of the Christian World. From the first garland speaks as a master to his pupils, in the style of his discourses on earth, S. *Thomas Aquinas* the *Angelic Doctor*—the great leader of the Dominicans, the greatest schoolman of his age, the thinker who synthesised philosophy and consecrated to the service of truth the dialectic which rationalists had abused and which mystics had denounced, the theologian whose great work, the *Summa Theologica* is used to this day as the basis of philosophic and theological studies by the Roman clergy, the doctrines of which are given to a wider circle by the wonderful poetry of Dante in which they are enshrined for all time. He names the other eleven souls in his circle, sings a noble panegyric of S. Francis of Assisi and concludes by denouncing the backslidings of the Dominicans.

From the second garland spoke S. Buonaventura, the Franciscan who narrated the life of S. Dominic with fitting eulogies and after naming the other eleven spirits of his circle also concluded by censuring the corruption of his own Order, the Franciscans. The two circles of Saints then sing of the Blessed Trinity and when they pause again S. *Thomas* explains to Dante the grades of perfection in God's creatures. Dante is warned to judge nothing hastily or over-confidently. In Canto XIII which is a regular scholastic lecture will be found Aquinas' theories of the creation. Solomon, whose peerless wisdom was Kingly Prudence, answered Dante's doubts about the resurrection of the body. Dante wished to know how the resurrection body would escape imposing limitations and weariness upon the now emancipated souls, making the very glory of heaven painful; or would that glory be lessened and tempered? Solomon replied that human nature includes both body and soul; therefore the disembodied soul is less complete than the whole person when the soul shall be reclad with the glorified body. It will then be more pleasing to God, and will so receive more of His grace and will thus see Him more adequately and love Him more warmly, therein having greater joy expressed in more dazzling brightness. But the organs of sense will be incapable of pain or weariness.¹

Dante and Beatrice pass into the Red glowing *Mars*, the Fifth Heaven—that of Fortitude, ruled by the *Virtues*, who imitate Divine

1 *Vide Argument Canto XIV "Temple Classics" Paradiso.*

Strength and Fortitude; they work signs and inspire endurance. This is the heaven of the *Warriors of the Cross*. They are seen forming a dazzling white crucifix athwart the red planet. Christ flashes forth thereon in such fashion as tongue may not tell. Souls in light move and pass upon the limbs of the cross, uttering divine melody and singing hymns of victory. Here Dante meets the soul of his great-great-grandfather Cacciaguida, who died on one of the Crusades. From Cacciaguida's account of the ancient Florence, its noble families and the charming simplicity of its citizens, Dante passes on to denounce the Florence of his own day, especially the ambitious scramble of the Republic for more territory. The Emperor should stop this but the opposition of the Papacy allowed this zeal for expansion. Cacciaguida prophesied Dante's unjust exile and panegyrised Can Grande della Scala, who would shelter him. Dante must not envy the evil doers; let him cast aside the timid suggestions of prudence and reveal to the world the whole content of his vision.

These are the famous lines concerning Dante's exile:

"Thou shalt make trial of how salt doth taste another's bread, and how hard the path to descend and mount upon another's stair."¹

His sorest trial was to be the vicious and evil company of his fellow exiles—"for all ungrateful, all mad and impious shall they become against thee so that it shall be for thy fair fame to have made a party for thyself."²

From Cacciaguida Dante learns the names of the other warriors of the Cross.

From the increased loveliness of Beatrice, Dante perceived that they had passed from ruddy Mars into white glowing Jupiter, the sixth Heaven—that of Justice—ruled by *Dominations*, images of *Divine Dominion*. Here the radiant spirits of *Just Rulers* arranged themselves in the letters of the phrase.

Dilige justitiam, qui judicatis terram

"Love righteousness, ye that be judges of the earth."

Then other spirits gather upon the final letter which insensibly grows into vision as a crowned eagle—symbol of Roman law and justice. The varied details of the successive transformations described in this Canto symbolise Dante's doctrines of the Holy Roman Empire as set forth in his political treatise *Monarchia*. Since justice is obscured and good government rendered abortive by the simony of the pastors of the Church, Dante rebukes the reigning Pope John XXII in an "aside." This is the only place in the poem where Dante takes heed of anything that happened after 1314 A.D.

¹ *Paradiso XVII 58.*

² *Ibid.* 68, 69.

In perfect concord the spirits in the eagle speak with one voice concerning the immutability and absolute justice of the Divine will, which is inscrutable and incomprehensible to mortals. The eagle rebukes the wickedness of all the kings and princes then reigning and sets forth by contrast the examples of the just and righteous monarchs and rulers of olden times, the six noblest of whom now form the eye—David, Trajan, Hezekiah, Constantine, William II of Sicily and Rhipeus the Trojan. Dante cannot refrain from uttering his amazement at the presence of these two heathen Trajan and Rhipeus. The eagle declared that both of them had died in the true faith—Rhipeus, “the justest among the Trajans and the strictest observer of right”¹ had faith in Christ to come and Trajan the Emperor in Christ come. Trajan’s soul through the efficacy of the prayers of St Gregory had been brought back to its body on earth and then his will was made right and pure—for to the mediæval mind repentance or change of will in hell was inconceivable. Who may know how many revelations have been vouchsafed to other righteous pagans? Not even the redeemed know yet who shall be saved. Dante found increasing solace in the words of Aquinas

“A man may prepare himself by what is contained in natural reason for receiving faith. Wherefore it is said that if anyone born in barbarous nations do what lieth in him, God will reveal to him that which is necessary for salvation, either by inspiration or by sending a teacher.”

The ascent to Saturn the seventh Heaven was not merely insensible but unmarked even by the smile of Beatrice whose glory would at this point have been unendurable by mortal man. Here also the music of the spheres was silent and the angelic harmony. This was according to the doctrine of the mystics—namely, that there is a stage at which the body is unable to bear more of the revelation of the divine.

This was the heaven of Temperance, ruled by the *Thones* who imitate Divine steadfastness and execute God’s judgments. Their special office is purification. Accordingly in the calm and serene Saturn appear the contemplative saints and the monks who kept firm and steadfast in the cloister up and down the golden-hued celestial Ladder of Contemplation which stretches up into heights untraceable. These saints as countless stars pass shimmering with radiance. One of these dazzling lights spoke to Dante in reply to his questions. It was St Peter Damian—Peter “the sinner” as he called himself—who as Cardinal Bishop of Ostia in 1058 had unsparingly castigated the corrupt morals of the monks of his day. Even so now, after discoursing upon the impenetrable mysteries of Divine predestination, he rebukes the vicious and luxurious lives of the great

¹ *Aeneid* II 428.

² *Canto* XX 106.

prelates and cardinals whereupon there comes whirling down a throng of flames that group themselves around him and raise a cry, as of thunder, which stuns Dante, invoking divine vengeance.

Then advances towards Dante, the soul of St. Benedict surrounded by other contemplative saints. He describes the foundation of his own great monastic order and laments the shameless corruption of contemporary Benedictines. None now mounts this Ladder of Contemplation; for all the monastic orders are degenerate. God will work great wonders yet. There is yet hope.

At Beatrice's bidding Dante follows the contemplatives up the celestial ladder entering the firmament—the Heaven of the Fixed Stars—at the sign of the Twins his natal stars. Now must he strengthen and rejoice his heart by gathering together his heavenly experiences up to this point and realising how far he has left earth behind.

"With my sight I turned back through all and every of the seven spheres and saw this globe such that I smiled at its sorry appearance."

"And that counsel I approve as best which holdeth it for least; and he whose thoughts are turned elsewhere may be called truly upright."¹

This Stellar Heaven the eighth sphere—the heaven of perfected Faith, Hope and Charity—is ruled by the Cherubim who represent the Divine Wisdom and spread the knowledge of God. Just as in the Earthly Paradise, Dante had seen the pageant of the Church Militant, so here in this celestial counterpart of Eden he sees the vision of the triumph of Christ, the new Adam, surrounded by the shining hosts of the redeemed. Dante finds his sight strengthened by his inexpressible vision of Christ. He is now able to endure the splendour of Beatrice's smile. Once again he looks, at Beatrice's bidding, upon the mystical garden of Christ—the Virgin Mary as "the Rose wherein the Word Divine made itself flesh" and the holy apostles as the lilies. Christ has withdrawn himself and shines down upon his chosen ones. Then Dante beheld Gabriel descend and place a crown upon the head of the Virgin who is then 'assumed' far out of sight, while the saints reach up tenderly after her with their flames.

Beatrice appeals to these hosts of Christ's triumph to help Dante to attain to perfect knowledge. The saints respond joyously to her appeal and in groups of circling lights reveal their varying measures of ecstasy. Then Dante is examined upon the three theological virtues which have God for their object as He transcends the knowledge of our reason. "His answers to St. Peter upon Faith, to St. James upon Hope and to St. John upon Charity contain the very essence of the devout wisdom of the schoolmen upon those three divine gifts whereby man participates in the Deity."²

1 *Paradiso XXII 133-139.*

2 *Gardner Dante "The Temple Primus."*

Within a fourth light the soul of Adam appears, to instruct Dante upon the proper cause of his fall and upon his life in Eden now that the poet has seen the triumph and ascent of the new Adam. Dante had been smitten with blindness because he strained his sight into the dazzling radiance in order to see whether St. John had yet his body. He wished to know in what sense our Lord's words were to be taken when He declared that "that disciple should not die." Even so St. Paul had been smitten with temporary blindness to make ready for a more spiritual sight to come. But lo!—a change in the face of heaven—St. Peter's white effulgence and that of the blessed saints flushed indignant red as the Apostle denounces the doings of Pope Boniface VIII, of Pope Clement and Pope John. He promises redress and bids Dante bear the news to earth and then the triumphant spirits, like flashes of flame, rain upwards into the higher heaven.

With a last look at earth, Dante turns with renewed longing to Beatrice, sees her yet more beautiful and rises with her to the Primum Mobile—the ninth or crystalline starless Heaven. Beatrice expounds to him how time and space take their source and measure from this sphere—the first moving. It is girt, (how, God alone understandeth) not by space but by the Divine light and love. The motion of this sphere is so swift as to be invisible. Next Dante sees a point of intensest light with nine concentric circles wheeling round it swift and bright in proportion to their nearness to this point. These circles Dante is told represent the Intelligences or Angelic orders connected with the nine revolving spheres—and Beatrice also explains to him how it is that the *Seraphim* who rule the Crystalline ninth Heaven the outmost, swiftest and widest sweeping, represent the inmost and smallest angelic circle. The Seraphim are images of Divine Love—they render perfect: they love most and know most, therefore are they, though rulers of the widest sphere, the swiftest and brightest by being nearest to the Point of Light. Space conceptions, after all, are but relative. Dante is also told where, when and how the angels were created and the processes of creation and the true relations between mind and matter. She speaks of creation as the overflowing of Divine Love. The whole Canto XXIX is worthy of close attention by all who are interested to know in what sense the Godhead is manifested everywhere without losing its oneness.

"Dante and Beatrice now issue forth of the last material sphere into the Empyrean, the true Paradise of vision, comprehension and fruition where man's will is set at rest in union with universal Good and his intellect in the possession of universal Truth" ¹

A blinding flash of light enwraps Dante, and his sight becomes such

that naught can vanquish it. He is now to seek the things of heaven, first in symbolic form and then as they really are. Perhaps this passing from blindness to a new celestial power of vision is an allegory of death—the passage from mortality to immortality. First then he sees in symbolic fashion a River of Light—the River of Divine Grace, the fountain of wisdom. On its banks are flowers of the celestial spring.

"From out this river issued living sparks (the angels) and dropped on every side into the blossoms (the saints) like rubies set in gold.

Then, as inebriated with the odours they plunged themselves again into the Marvellous Swirl and, as one entered, issued forth another."¹

Then the River is seen changed to the form of a circular lake of light—for love is the centre of the universe and all creatures must return to God as their centre and end. The saints and angels appear in their true forms, all in their true places in the petals of the mystic and sempiternal Rose of the Blessed—all gazing into the unfathomable depths of God. Dante, lover of symmetry and order, describes the divisions of this Rose and the thrones of many individual saints arranged in a scheme that is full of a logical symbolism. One throne is vacant; it awaits the Emperor Henry VII of Luxemburg. In what an appalling contrast are the fiery tombs in hell prepared for Popes Boniface and Clement!

Beatrice returns to her throne by the side of Rachel, her allegorical mission ended. To her Dante pours out his gratitude imploring her further protection and praying that he may live and die worthy of her love; whereon she smiles upon him and then turns to God in whom alone is true and abiding union of human souls. Her place is taken by St. Bernard even as Virgil had been replaced by Matilda. Professor Gardner² writes:—"St. Bernard seems to represent the glorified contemplative life in our heavenly country, as Matilda had symbolised the glorified active life in the state of restored Eden, beginning on earth in the speculation of supernal things, it is perfected in heaven in the immediate intuition of God."

Dante, under the guidance of St. Bernard, the saint who had seen God while yet on earth, gazes by way of preparation for the crowning vision of the divine essence, upon the glory of the saints and the ineffable beauty of Mary surrounded by her angels—Mary "the face that is most like to Christ—whose beauty alone can dispose thee to see Christ."³ In a most wonderfully beautiful hymn to the Virgin Mother St. Bernard implores of her grace for Dante to rise to the vision of the

¹ *Paradiso*, XXX 64-89. "Temple Classics" edition.

² *Gardner Dante Primer*, p. 137.

³ *Paradiso*, XXXII 85-88.

Divine essence now and for her loving protection of him on his return to earth.

I close with Professor Gardner's¹ most admirable summary of this vision which Dante, the true poet, says may not itself be *recalled*, "though the sweetness that was born of it doth still drop within my heart."² "Entering into the Divine Light, uniting his intellectual vision to the Divine essence, his soul is fulfilled of all blessedness. He beholds the type of all creation, and, as his power of intellectual vision is supernaturally enlarged, he beholds the Creator. He contemplates the mystery of the Blessed Trinity, and the union of the Divine to the human nature in the Person of the Word —as much of the inscrutable Triune God as may be permitted to any created intellect in the Beatific Vision. The Vision ceases, but his desire and will are moving in perfect harmony with the will of God. His mind has attained to its proper end and perfection, united in charity to "the Love that moves the sun and all the stars."

"L'amor che move il sole et l'altre stelle."

F. R. SELL.

¹ Gardner Dante Primer, p. 138.

² Paradiso, XXXIII 61-62.

SOME SALIENT FEATURES OF ANCIENT INDIAN EDUCATION.

THE subject of education is as vast and varied as the history of India. It is my aim in this paper to disentangle from the story of our past such features of the Indian system as appear to me to have been both distinctive and desirable at the time, so that modern opinion may be elicited in regard to how far and in what ways their retention or reintroduction may be feasible in the present circumstances. It is admitted on all hands that the best system for India would be that which preserves whatever is precious in our heritage and absorbs what is good of modern ideas and institutions. Indian civilisation and culture have continued through the ages on account of this very power of a growing social organism to absorb the best in the new influences without losing the distinctive features of its own individuality. It is to be hoped that this spirit of India will dominate those to whose care is committed the problem of educational reconstruction in the country at the present day.

I

The first noteworthy feature is the home education of children. Vedic view is that education begins with conception and is co-extensive with life. The *Samskaras* or ceremonies of purification are based on the belief that pre-natal influences go a great way towards shaping the child's destiny. The *Mantras* repeated during the period of pregnancy seek to endow the foetus with an innocent mind and a loving heart, and to impress on the parent the need for complete concord and harmony with the laws of nature to ensure the real happiness of the babe to be born. It is clearly recognised that the mother, as she is the first, is also the most powerful of educators, whose conduct during the nine months of conception determines the natural endowment of the child. Let her thoughts be holy and serene, says the *Atharva Veda*¹, let her find her atmosphere congenial, and enjoy peace and happiness. So would she stimulate the child's mental faculties, induce patriotic and other impulses, and instil spiritual force into its mind.

The nature and the aim of juvenile training in the home are to be gathered from the hymns used at the *Samskaras* of children. Those of the *Jatakarma* draw attention to the need for the service of humanity with

¹ A. V. VI 219, etc.

an abiding faith in the Omnipotent¹. At the name-giving (*Namakarana*) ceremony the child is received into family and social life by the friends and relatives assembled for the purpose². A spirit of cheery optimism and of the joyousness of life is sought to be instilled into the child almost from birth. Several hymns of the *Rig Veda* imply³ that the natural instincts must never be crushed, in the training of children. The child was taken out into the open, to admire the gay flowers and green leaves on the background of the setting sun, breathe the pollen driven by the wanton wind, enjoy the music of the running stream or the gurgling brook, and the sweet song of birds or the dance of the peacock. The *Mantras* used at the rice-giving ceremony emphasise the need for cleanliness and care in cooking, and bless the child's earliest efforts at learning to lisp its first sweet words.⁴ At night it enjoyed its morsel of food, bathed in the placid moonlight and traced the course of the moon and the stars as they plough the heavens on their tireless journey. The *Upanayana* mantras enjoin the child to keep good company, to take the vows of poverty and abstinence, to speak the truth, and to become the child of the community, begging for alms, respecting educated and advanced souls, and at peace with all beings. Mantras of the *Yajus* and *Atharva* remind him at the outset of the rules they lay down for his future guidance. He was to keep his body fit, take special care of his teeth and of his eyes, and do his utmost to live 100 years. He was to get rid of every kind of heat—passion, struggle and turmoil—not essential for keeping a sound mind in a sound body. He should acquire fame and glory, win the good will of his fellows, and respect at the hands of all. He was to mould his conduct after vedic ideals, and develop an attitude of real humility which was the crown of true education.

Our authorities differ as to the earliest age for the commencement of school life. Charaka and other medicine-men fix it at five years, and writers on astrology as early as the third year in the case of precocious children. It is interesting to note that medical works insist on the postponement of school-going to the fifth year in any case. I-tsing tells us that children began letters at six, and Yuan Chwang that they passed at seven years to the study of the arts and sciences. The age of initiation to sacred lore was eight in the case of advanced pupils and was put off till as late as the sixteenth year in the case of unpromising lads. The weaning of the child from domestic influences was signalled by a great ceremony. He left his home now and resided thereafter in the teacher's house.

1 Y. V. 32, 13; A. V. XI 12.

2 Y. V. VII 29.

3 III 36. 10; II 21, 6.

4 R. V. 8, 9, 11; Y. V. XVII 13; XI 83.

The best fruits of home education are probably discernible in the high status of women and their training for life. The education of girls was almost entirely of the domestic kind. The three R's were taught in the father's home, but the husband was looked on as the natural teacher of a girl. It was held his duty to make her repeat and understand the *Veda*.¹ That women shared in the culture of the men may be gathered from the fact that some of them were poetesses and composers of hymns; some of them were intellectual companions of their husbands like Maitreyi of *Vājnavalkya* (*Bṛihadāraṇyaka Upaniṣad*) and from the direction in the *Aitareya Aranyaka* demanding that ladies should leave the hall of instruction at the stage when some principles of gynecology were explained, which are indelicate for the female ear. In one hymn we have a fling at female intelligence. 'The mind of woman is hard to instruct, and her intelligence is small'²—certainly a cynical remark which bears witness, none the less, to the fact that they had some regular instruction in the home. Literary education was held of little account in women as compared with that real education which fitted them for maintaining the purity and blessedness of family life. There are frequent prayers for the concord of husband and wife. There are references³ to careful and industrious wives and their excellent domestic organisation and arrangements.

Buddhist texts enable us to judge how far the domestic education of girls was efficient. The *Lalita Vistara* has it that Gautama Buddha's wife was accomplished in writing, and in composing poetry; was endowed with good qualities and was well-versed in the rules of the *Sastras*. She was no domestic judge but had her own opinions as well as openness to the reception of new ideas. Attention to arts and accomplishment in the home education of girls is evident from the story of *Vasavadatta* as well as from the description given by Kālidāsa of his heroines in the dramas and poems. In the case of none of these or of the heroines of the Epics, is there a vague hint of anything more than domestic education of the ordinary kind in vogue at the time.

II

The relationship of teacher to student may be regarded as a second salient feature of ancient Indian education, for the teacher was in *loco parentis* to the student, and his protector and guide during the impressionable and difficult period of youth and adolescence. Great qualifications were demanded of the teacher. Vedic texts demand that he should be of a family of teachers who had given themselves up to the cause of learning

1 *Adhyayanabhavepi Vedam patnyai pradaya vachayet.*

2 R. V. VIII 33, 17.

3 e. g., R. V. I 124, 4.

for three generations at least. Buddhist texts demand of a *Bhikku* 10 years' experience of the world after his own student-life before he could take up a disciple for training. Two hymns of the *Rig Veda*¹ describe the teacher as the very store house of knowledge, a man of engaging manners cheerful and lively, full of sympathy and charity, leading a pure and noble life; orderly in habits and regular in routine; gifted with a sense of proportion, and having the courage of his conviction, with a magnetic personality capable of enforcing discipline, with an optimistic outlook on life, and intent on social service. The *Guru* was to be one capable of adding the force of example to the influence of precept as is clear from the *Mundaka Upanishad* and the *Ramayana* (*Brahmanishta* and *Tapas svadhyaya nirata*). A second qualification demanded was skill in the art of exposition. In the *Ramayana*, Nārada is spoken of as 'Vagividam varah.' Kālidāsa's *Malavikagnimitra* adds *Sankranti* (art of teaching) to knowledge and action as the merits of a good teacher. But the teaching was regarded as more effective by example and inspiration than by words and instruction. In the *Bṛihadāraṇyaka Upanishad* the greatest of spiritual teachers uses but a single letter *da* which is pregnant with suggestiveness. The highest conception of teacher is that of Dakshinā-mūrti who is said to dispel the doubts of disciples by a solemn silence more eloquent than words, meaning that personal magnetism was far more important than the power of exposition. Lastly, the *Guru* was remarkable for his humility as well as large-heartedness. He treated his disciple as he did his eldest son, and imparted to him the training for which he was fit. The teacher's modesty is revealed in passages like those in the *Prasna* and *Taittiriya Upanishads*. In the former, Sage Pippalāda tells his questioners that he would answer *if he knew*. In the latter Upanishad the *Guru* advises the parting disciple to copy his example only in so far as it was beyond reproach.

The first quality insisted on in the student was thirst for knowledge and earnestness in the pursuit thereof (*Sraddha*). In the *Katha Upanishad* Yama puts Nachiketas off the right track with a view to test his earnestness, by holding him the bait of worldly pleasure, but Nachiketas' temper is true as steel, and he urges his request for the knowledge of the *ātman*. The Buddhist *Suttas* dwell on the spiritual barrenness of pupils who have no *Sraddha*. Secondly, a preparation or apprenticeship of some kind was obligatory. In the *Mundaka Upanishad* the knowledge was to be imparted only to those who had taken the *Sirovṛata*. In the *Prasna Upanishad* the students just received are asked to spend a year in contemplation, continence and earnest inquiry.²

1 R. V. I. 53, 1; 63, 2.

2 *Tapas brahmacharyena sraddhaya samvatsayadha.*

Sometimes the period of preparation was prolonged to test the student's fitness to be the recipient of the desired knowledge. Aspirants for spiritual knowledge were expected to train themselves in the methods of self-control, and acquire purity of mind in the period of waiting, for the highest knowledge was not imparted to others.¹ Thirdly, the pupil was to show due deference and revere the teacher. The *Mundaka Upanishad* and the *Bhagavat Gita* make regard for the teacher (*pranipata*) the first duty of the student. Manu and other law-givers prescribe detailed rules of discipline and behaviour. Fourthly, the spirit of inquiry and criticism was expected and encouraged. In the *Prasna Upanishad* the aspirants for learning are asked to put questions *ad libitum*² and the *Bhagavat Gita* lays down the need for circumspect questioning of the teacher (*pariprasna*). Though thus earnest attempts to solve an honest doubt or difficulty were looked on with favour, hypercriticism was put out of countenance. Yāska lays down that a Science should never be taught to a fault-finding or prejudiced person. Fifthly, the pupil was required to do service, not always menial but menial if required. This was not grudged in an age when free tuition and gratuitous boarding were universally provided for the pupils. Lastly, the pupil was required to conform to the code of discipline laid down for him, which aimed at concentration of intellectual effort and integrity and stability of character. The most important principle under this head was *brahmacharya*, the practice of continence as to which the Upanishads are insistent and the Sūtras lay down stringent rules. It was among the cardinal virtues enjoined by Gautama Buddha Vardhamāna Mahāvīra added *brahmacharya* to the four principles of Pārvanātha's Jainism. So essential was this virtue regarded that *brahmacharya* came to connote discipleship as well as continence.

The relations of teacher and pupil were characterised by harmony and by freedom. Education was free and open to all.³ A story in the *Chchandogya Upanishad* shows that Brahman birth was not indispensable for studentship even in the Veda. Education was gratuitous, the pupil getting not only teaching but boarding and lodging gratis. It should not be thought that the teacher could afford therefore to defy the feelings of the pupils or lord it over them. The desire to teach, to gather bands of students and form an academic atmosphere was so wide-spread that we have prayers in the Upanishads for more and more students.⁴ There was freedom for the teacher as well as the taught. It is true that the teacher was patronised by kings and nobles, but

¹ *Prasanta chitta and Samanvita.*

² *Yatha kamam prasnam pirohetha.*

³ *Manu VII, 162.*

⁴ e.g., *Tait. Upanishad.*

there was absolutely no interference in his work or his methods. He acquired and imparted knowledge for its own sake. He had to care only for his own conscience. His liberty was limited only by his desire for popularity among the student population and for the appreciation of the public on which depended his social standing and reputation. He had no weapon other than moral persuasion for bringing round rebellious or mischievous students whom the Jaina Sūtras compare to 'bad bullocks.' It is true that Manu and other law-givers provide for corporal punishment in exceptional cases, but the general opinion was against its infliction. We have the testimony of Yuan Chwang to the effect that for seven centuries punishment had been unknown at Taxila.

Rupture of the relationship is provided for in particular cases. The student could leave off the teacher who was incompetent, was lacking in knowledge or transgressed the *Dharma*.¹ Apastamba would justify desertion by the pupil also in cases where the teacher used his time to the detriment of his studies, a necessary precaution in an age when the pupil was by law and custom bound to do the teacher service of various kinds. Lastly, a pupil left the teacher for pursuing elsewhere a branch of knowledge in which the teacher was not an expert.² But the main question which modern educationists might ask is. Did an honest difference of opinion lead to a rupture? Youths whose personality was so prominent as to push differences to extremes were rare at all times especially in a conservative country. One classical instance is the great Yājnavālkya. He disagreed with his teacher of *Yajur Veda* who was according to tradition his own uncle, Vaisampāyana, and compiled a new system known as *Sukla Yajus*. He should be placed long before the Buddha in date. Another dissentient pupil was Apastamba, whose differences with his teacher Bōdhāyana are narrated in the *Puranas*. These were the exceptions which prove the general rule that the pupil parted with the teacher on the most cordial terms and made him a handsome present (*gurudakshina*) at parting.

The *Taittiriya Upanishad* contains the parting advice of a teacher to his disciple: Speak the truth; live in the way of *Dharma*. Neglect not to study and think over the Sacred Texts. Go forth and lead the life of a householder. Depart not from the truth, deviate not from the path of duty, the path of welfare, the way to glory and prosperity. Conduct thyself as is meet towards learned and elderly persons. Honour thy mother and father, and thy *Acharya*. Be hospitable to guests. Let not a feeling of jealousy enter thy mind. Copy us only in those acts wherein we are free from blame. If a doubt cross thy mind, a question

¹ Ap. I. 5 26 and I. 4. 25.

² Sacred Laws I. 27, 28, 292, II, 68.

to be or not to be, to do or not to do, even act as good and great men free from the deadening love of self, and thirsting for the right are seen to be or to do in the locality wherein you live.

III

We may now consider the organisation, curricula and methods of maintaining *discipline*. In the Vedic Age education was predominantly literary in character. The curricula even in the Vedic period included a variety of subjects. Education was pleasurable. Music, vocal and instrumental, and dancing in the open air were popular amusements of the Aryas. Their excellence in the art of war must have been the result of a vigorous training in the schools. Medical education was general and not confined to a few medicine-men, though charms and spells were invariably combined with medicine proper. But the subject matter of instruction was developed in the Vedic Age as the result of the two-fold tendencies of the Aryan mind. Aryan observation and induction descending down to the minutest detail stand in contrast to Greek deduction and are clearly in evidence in Symptomology, Therapeutics and Physiology, *i.e.*, as far as they could go before the discovery of the microscope. Aryan theorising and ratiocination are too well known to need mention. It may be said in the way of criticism that the Indian trait of exaggeration was present in both the directions and that both the methods were overworked. So also was the tendency to system-building which was not the peculiar characteristic of India but which was carried further in India than in any other country down to modern times. Even cooking and thieving were systematised—were considered by Indians as having a place among the arts. Mūladeva is the reputed author of the *Chora Sastra* (Art of thieving) and of *Dyuta* (gambling), and he is one of the familiar names in Sanskrit tradition and literary history. The art of cooking (*Paka Sastra*) had aspects medical, sanitary, æsthetic as well as religious. Considerations of time forbid my entering into details. Suffice it to mention here that though the schemes of studies expanded and there was more and more systematisation and specialisation, the Aryan race never lost touch with this profound principle that the aim of culture is to enable men and women to live the right kind of life, and strive for what is highest and noblest. The main objective in life was *Dharma*, 'the rights and duties which hold all together'—what we should now call social obligations, which were binding on every one according to the circumstances of his innate aptitudes and his rank and station in life. The curriculum devised for teaching the *Dharma* consisted of the *Vedas*, *Vedāngas* and *Upa-Vedas*. Other auxiliary branches of knowledge from this point of view are detailed in the *Brahmanas* like the *Satapatha*, and the *Upanishads*.

like the *Chchandogya* and *Brihadaranyaka*. The next objectives in life were *Artha* and *Kama*. The latter included Belles Lettres, Aesthetics and Fine Arts, comprised in a number of *Kalas* (*arts*), and classified by *Vātsyāyana* under 64 heads and by other writers under 72. It is interesting that not only Fine Arts and Utilitarian Arts, but physical exercises and the art of war are comprised in this department. But in course of time *Kama Sastra* acquired ill repute in its restricted sense of knowledge of men and women, their psychology and their social and sexual relations. The branches of knowledge comprised in the faculty of *Artha* are detailed by *Kautilya* in his chapter on the Education of a Prince.¹ The first is *anvikshiki*, a course of general philosophy and discipline of the mind which *Kautilya* commends on account of its scientific and critical method. This was to be learnt under good men (*Sishya*). Then came the *Vedas* in their three departments. After the necessary discipline was provided by these subjects the prince was to enter on his study of Economics (*Varta*) and Civics (*Dandaniti*). The former related to agriculture, cattle-breeding and merchandise (*Krishi, Goraksha, Vanijya*) and there were state officers to teach these subjects. Lessons in Civics were to be taken from theoretical and practical politicians (*vaktrprayoktrbhyah*). But the most important branch of study was Philosophy, especially Metaphysics, taught through the medium of the *Upanishads*, the *Gita*, and the six *Darsanas* (systems), with a view to final deliverance from bondage *i.e.*, *Moksha*. What use is your education if you have not been taught how men are born and where they go after death? asks a parent of his son in the *Chchandogya Upanishad*.² The highest knowledge is that of the Immortal Self; inferior far is all other knowledge, say the *Upanishads*. The Buddhist works give some idea as to how the curriculum worked in practice. The course of studies undergone by *Gautama* the Buddha are detailed in the *Lalita Vistara*. I would merely call attention to the mixed nature of the curriculum consisting of chosen subjects from the faculties of *Dharma, Artha, Kama* and *Moksha*. It gave a broad culture and did not seek to turn out a specialist. Specialisation was the efflorescence of culture, springing up spontaneously and not made by training.

The course of instruction for the year began in the Winter season, on the full moon day of *Sravana*. There were four holidays every fortnight—the 1st, 8th, 14th and 15th day. We find it clearly stated in *Manu* and referred to even as early as the *Ramayana* where *Sita* is described as emaciated 'even as the *vidyā* of one who studies habitually on the first day of the fortnight' (*pratipad*). That these days were held

1 *Artha Sastra*, Chap. V. 1.

2 *Chand. Upanishad* V. 3.

important we learn also from the fifth Rock Edict of Asoka. We have to seek for explanation in the ritualistic importance of these days and in the astrological beliefs that were prevalent. The length of the whole course extended from 12 years at the least to 36 years. The *Chchandogya Upanishad* says that a young man went to his Achārya at 12 and emerged a scholar at 36 years of age. In the law books it is generally recognised that 12 years were necessary for mastering each of the Vedas. The *Panchatantra* mentions incidentally that the detailed study of Grammar alone took 12 years.

As regards *method*, memorising and even learning by rote was the characteristic Indian method. It is true that memorising had its advantages in that age, and it probably accounts in the light of recent researches in Experimental Psychology, for the strength of the Indian in Mathematics. But it was carried too far in India, and the best minds led a re-action. Even in the *Rig Veda* there are passages which mock at parrot-like or frog-like reciters and insist on the need for contemplation. The *Brahmanas* stigmatise a mere memorizer as a living pillar or bearer of burden. It is pleasant to note that teaching was pleasurable. The teacher says *Munu*, must use sweet and gentle speech, (*Vak-cha-mathura slakshana*) and must not give pain in the process of instructing. Thirdly, self-education was encouraged. The word *tapas* of the mind means meditation and reflection. The story of *Bhrigu Vāruni* in the *Taittiriya Upanishad* furnishes the best example of the teacher insisting on laborious self-examination and self-education until the student attained the point of self-realisation and self-satisfaction. Again, the student was left to learn a great deal by contact with his fellows, and by observing nature in its beautiful and sublime aspects. — 'The *Sishya* learns but a fourth part from the teacher, a fourth by self-study, a fourth part by contact with his fellows, and the last fourth by experience in after-life.'

The last but not the least part of education was travel far and wide in India. In the *Yoga Vasishtha* we are told that Sri Rāma on his return from his *Guru*, went on his travels to the holy rivers and hermitages of sages. Places of pilgrimage were located on a high eminence or close by a brook whose blue waters meandered amidst a stretch of grass or brown gravel, from which the eye looked on the expanse below or around engendering love of the country with such a beautiful scenery, and suggestive of thoughts widening the mental horizon and reaching outward to the Infinite. The spots selected were as far apart as the remote corners of India. The influence of travel on scholarship was noted by Yuan Chwang. He says the wandering Bhikkus and Sādhus accumulated a treasure of knowledge by constant travel and gladly imparted it to others. But there were other agencies as well for

imparting political and religious education. We learn from Kautilya that the prince heard the *Itihasa* in the afternoon, which comprised we are told, legendary tales, fiction and folklore.¹, and from the *Lalita Vistara* that the mind of Gautama was fed on stories chosen specially from the treasure-house of the Epics and the *Puranas*. While patriotism was inculcated in this way, actual political education was reserved for later in life, when the men who had finished an academic education were chosen for filling offices particularly on the local self-governing bodies.

IV

Side by side with the organisation of expanding knowledge we have also the organisation of the agencies for imparting knowledge. As the fame of particular teachers gathered under their care more students than they could manage, resort was had naturally enough to the monitorial system, the senior students teaching the junior. We have descriptions of such *Gurus* (*Kulapatis*) with as many as 10,000 pupils under them in classical literature. This is indicated in the *Kautilya*² which demands a Brahmacari's devotion to an elder class-mate in the absence of the *Guru*. In monastic schools this was the only system possible. It appears to have worked well, as we have no complaints against the seniors recorded in Buddhist texts which are naive enough to cite instances of silly quarrels among Bhikkus. Secondly, there were wandering teachers, known in Vedic literature as *Vratas* or *Vratyas*, *Parivrajakas* and *Sramanas*, who were remarkable for their unorthodox tendencies and free opinions. These teachers were collecting in particular centres and localities. Thirdly, there were secular schools for teaching the three R's and moral stories, as would appear from the *Lalita Vistara*. These were the agencies for elementary education as we now know it. The other two agencies were concerned with higher education. Their activities resulted in the foundation of the University. It is not easy and it is hardly possible to differentiate between the part of the two parties in this consummation. It were also a bootless chase to try to distinguish the relative contributions of the Brahman and other classes. Indian culture is a blend of all influences, orthodox and heterodox, Brähmana and other, Arya and non-Arya, domestic as well as foreign. The seminaries of learning were neither jealous of each other nor mutually exclusive. From the *Vrātya* bands of the age of the *Mantras* and the *Parivrājakas* of the *Aranyaka* period we can trace the continuity of academic activity to the *Parishads* of the *Brähmanas* and the *Upanishads* and there is abundant evidence that the *Parishads* continued to meet all through the ancient

1 Bk. I, Chap. V.

2 Chap. III

ages. There men of all sorts and views met and discussed matters and scholars and original researches were liberally rewarded by kings and patrons. The co-operation of sectaries is the essential condition of true culture, and is revealed in all the books. Jaina Sutras enjoin reverence to all teachers Brāhmaṇa as well as *Sramana*. So also does Asoka who counted Brāhmaṇas, Sramanas and Ajivikas as well as Adi Bouddhas among his teachers, though a modified form of Buddhism had gained his allegiance.

As learning grew more advanced and organised particular localities acquired a reputation for special branches of knowledge, such as Taxila for Medicine and Benares for Theology. Jivaka, the physician of Raja Bimbisāra of Magadha, was an alumnus of Taxila in the 6th century B.C. while Pasenedi of Kosala was the most prominent student of politics then. But the Buddhist *Jatakas* mention numerous other subjects taught at Taxila. The *Bhimasena Jataka* mentions advanced teaching in archery, the *Campayya Jataka* to instruction in snake-charming and the *Vratachatta Jataka*; in the discovery of hidden treasure. The most popular subjects were architecture (*silpas*) and medicine. There were hundreds of students going to Taxila for higher education. Yuan Chwang gives us further details of the University. It was supported by the revenues of 100 villages, and had 100 platforms for teaching, 1,000 teachers and 10,000 students. Among the subjects taught were mathematics, logic, literature, arts, medicine and philosophy. The chief religious subject was *Mahayana* Buddhism, but there was no sectarianism, and the *Vedas* and *Sūtras* were taught side by side. At Nālanda Yuan Chwang was struck with the excellent discipline, and eclectic teaching. All the 18 *Hinayana* sects were represented, and the studies included the *Vedas*, medicine and mathematics. Teachers took precedence according to the range of their study and general culture than the degree of specialisation in any branch of knowledge. The chief master was the abbot Silabhadra a man of all round culture. There were 10,000 scholars in all, about a 1,000 of whom were proficient in ten *vidyas*. Students found admission difficult to the advanced classes, only 20 to 30 per cent of the candidates succeeding in getting admission: so high was the standard.¹ We have accounts of other Universities as well. That of Vikramasila had six colleges and a big library at Udayapuri in Bihar² and a hostel, to which foreigners sent their children. Logic was a special study in Nūddea (Bengal), Mimāmsa at Kānchipura, Astronomy at Ujjain. Then as now new Universities were formed on the model of the older ones. The colleges at Kāmarūpa (Assam) for instance were based on the Nālanda model.

¹ Beal: Records II 170

² C. 700 A.C.

Yuan Chwang gives us a detailed description of the University buildings. The great college of Nālanda stood four-square, 'like a city precinct.' The gates (porches) were of three storeys, each storey being 12 feet high. It was the only place where a water-clock was kept to show the correct time. From the college were separated eight other halls. The richly adorned towers and fairy like turrets, like pointed hill-tops, were congregated together. The observatories seemed to be lost in the vapours of the morning, and the upper rooms towered above the clouds. 'From the windows one might see every hour the winds and the clouds produce new forms; and above the soaring eyes one may see the conjunctions of the sun and the moon.' The chambers had coloured eaves, pearl-red pillars, carved and ornamented; richly adorned balustrades; and roofs coloured with tiles that reflected the light in a thousand shades.'

It is more interesting to consider how the pilgrim was impressed with the spirit and aim of education in the Universities he visited. He says of Taxila that the students were enjoined to the free and fearless pursuit of truth, meditation on the plan and purpose of life and creation, and respect and regard for high and low alike. The cardinal truth inculcated was the doctrine of *Karma* or cosmic justice, whose iron law compels every one to reap what he has sown and to the extent he has sown. Another principle he was struck with was the appreciation of whatever was good in other lands and among other peoples, and the adoption of what was thus learnt to the conditions of this country. Lastly, the objective of education and culture was not power or self, distinction or decoration, but merely the unremitting service of man. The word Nālanda means 'insatiable in rendering service.' The teaching staff included experts from foreign countries.

We may note a few outstanding features in the picture of Indian University education as given by the Chinese pilgrims. First, the teacher held a high position in society. Yuan Chwang says that not only the teachers but the students who had completed their studies were held in universal reverence. Fa Hien relates the story of a Brahman in Pātaliputra for whom the princes¹ and peoples had such great regard that 'for about 50 years the whole country revered him and placed implicit confidence in his advice.' But the highest thinkers were content to live in seclusion, leading lives of contemplation and continence. 'They are not moved by honour or reproach. The rulers cannot make them come to

1 'A good king must respect teachers as well as ministers, who warn him in secret of his careless proceedings' (VII. 5).

We read in the Gherabu inscription that Viradeva after his Vedic studies repaired to the famous monastery near Peshwar, as late as the 9th century.

court. They seek for wisdom and rely on perfect virtue.¹ Secondly, culture was broad-based and many-sided, and the curricula of studies betray no sectarian zeal, or exclusion of things alien or new. In the *Sukranitisara* we find among the subjects not only *nastika* theory but Yavana or Greek Philosophy. In the Universities and Hostels we have not only foreign students but foreign professors. Thirdly, the organisation of teaching was based on consideration for the conditions peculiar to India. It would be a matter for the earnest consideration of the authorities whether in this tropical country classes may not be conducted in the morning and evening hours and whether provision could be made in educational budgets for artificial devices like coloured tiles for the roof as at Taxila, and light paint for the walls for mitigating the heat and glare of the tropical sun.

V

Education was gratuitous, and there was no difficulty in the matter of finding funds. We have already seen that the buildings at Taxila and Nālanda were elaborate and luxurious in style. The libraries of Jetavana were richly furnished. The extent of the park was 130 square acres; it contained 120 buildings and several hundred houses, chapels for preaching, halls for meditation, mess-rooms and chambers, bath-houses, hospitals, libraries and reading rooms, with pleasant shady tanks, and a great wall encompassing all. I-tsing tells us that there were 3,500 residents at Nālanda, and Yuan Chwang that there were 11,000 at Taxila. I-tsing tells us that the University of Nālanda had more than 200 villages endowed by kings of many generations, and Yuan Chwang that Taxila had the revenues of 100 villages remitted to it by the king for endowments. Besides property and revenue endowed by kings and chieftains, there were contributions made by the public of the locality. We are told that 200 house-holders contributed rice, butter and milk to the Hostel at Taxila, and enabled the students to get free clothes, food, bedding and medicine. It is interesting to find that none of the Chinese writers mentions any income from fees. But fees were actually levied from pupils in the Buddhist schools, and they are mentioned in the *Jataka* literature. Hindu law-givers of a later period, e.g. the *Vishnu Smriti*, copy this system and sanction the taking of fees by *upadhyayas*, teachers of an inferior grade who taught the secular subjects, as distinguished from *Acharyas* who continued their old position of honour and prestige. It would appear from the accounts of the Chinese pilgrims that the levy of fees was unpopular and the system did not obtain in the Universities.

Endowments for advanced education were pouring forth profusely in

1 Watters: *Yuan Chwang's Travels*, I, 164.

the extreme south of India, as is shown by Chola inscriptions of the 11th and 12th centuries copied by the Madras Epigraphical Department in recent years. One inscription reveals the existence of a *Sarasvati bhandara* in temples, at which gifts could be deposited. A Sendalai inscription provides for the reading of the *Mahabharata*, and a Kumbakonam inscription for expounding the *Purva Mimamsa*. A Tiruvorriyur inscription records the gift of 375 acres of land for expounding Sanskrit grammar in the Vyākaranamantapa. The Venkatesa temple at Kānchi maintained a hospital, a hostel and a college. The village assembly of Ennāyiram founded a Vedic College and hostel in 1023 A.D., with liberal salaries for professors and pocket money to students of some of the subjects, out of 45 *veli* of land placed in possession of the temple authorities. Public interest in the endowment was ensured by lending certain sums of money to the merchants of the place who were to pay the annual interest in perpetuity in the shape of sugar and other commodities to the college hostel. The Village Supervision Committee had to look to the supply of fuel required, and the temple authorities were to make over to the hostel all the milk, ghee and curds that was in excess of the temple requirements. Another inscription of Rajendra Chola¹ makes provision for 260 students, as against 270 at Ennāyiram but provides also for oil-bath for the students. It would be the triumph of epigraphical research in South India if such educational endowments discovered could be disentangled from the vast chatram and temple funds at the present day, and their proceeds ear-marked for education in keeping with the original purpose of the founders.

Provision was made at the same time for men who had given up the world to spend their leisure in literary and religious activities. In the *mathas* and temples we have numerous endowments from princes and peoples for enabling recluse; to devote their life-time to learning and teaching. When the funds ran short the head of the *matha* went round to distant villages and gathered funds from lay disciples; scholars and pandits attached to the mutts went round to preach in the villages. The temple was the centre of education in various ways. Temple authorities provided education through the fine arts, acted as the agency for mass education both secular and religious, by arranging popular lectures in the extensive halls and platforms, and administered endowments made for advanced study and teaching.

State patronage of scholars to free them permanently from the need for earning a living was another institution, especially in South India. We learn from records of the Third *Sangam* of Madura that one of the poets got the revenue of 500 villages, and another ten lakhs of coined

money. A poetess got a lakh of gold coins besides solid gold ornaments. We read in a record of Kulottunga Chola I that the poet Tirunārāyana Bhattan was awarded half a *veli* and two *ma* of land. Grants of land (vrittis) to scholars which forms the subject matter of most of the copper plates of Vijayanagara emperors in Mediæval India, were thus merely in continuance of ancient practice.

S. V. VENKATESWARA AYYAR.

(*To be continued.*)

SEWELL'S "VIJAYANAGAR."¹

THE work, of which this is a reprint published in March of this year, appeared almost a quarter of a century ago and was a pioneer effort at writing a continuous history of the empire of Vijayanagar with the material then available for doing it. Mr. Sewell, who had then just retired from the Madras Civil Service, after a comparatively long term of years as Collector of Bellary, is well-known in the field of South Indian Archaeology and kindred subjects by his various works, of which that on the Amraoti tope appeared as long ago as 1877. His best known work is the sketch of the dynasties of Southern India. He has since been devoting himself to Indian Chronology in which he had already published two or three handbooks of first importance to students of Indian History.

Even so, Mr. Sewell claimed, rightly as far as he could go at the time, that that history was a great deal dependent on the two Portuguese chronicles, those of Paes and of Nuniz, which he translated for the first time and published along with his work. With these chronicles as the basis he proceeded to reconstruct the history of Vijayanagar bringing to bear upon the story of the chronicle the whole of the archaeological material available to him. The work before us was the result of this commendable effort of his. The value of the chronicles as a source of history still remains, notwithstanding the great advances that have been made since the first publication of this work. As such, a reprint and a cheaper reprint is quite welcome. The omission of the illustrations is not much of a loss to the general reader at present, and is a distinct gain in as much as it makes the book somewhat cheaper than it would otherwise have been.

While welcoming the book as meeting a want, it would not be amiss to indicate some of the salient features of the recent advances in the study of Vijayanagar, which would usefully supplement the information contained in the work itself. Of the two chroniclers who were both of them in Vijayanagar in the earlier years of the sixteenth century, Paes seems to have been in Vijayanagar in the reign of Krishnadevaraya; the other whose record is the fuller, seems to have lived in the reign of his brother in the latter part of whose reign, what may be regarded as a political revolution took place, in the history of the dynasty. While, therefore,

1 "A Forgotten Empire (Vijayanagar)." By Robert Sewell (Madras Civil Service, Retd.) Messrs. George Allen & Unwin, Limited.

their records would both of them be invaluable as sources of first-hand evidence for the time to which they relate, their value is somewhat discounted when these refer to periods of the early history of Vijayanagar. Even in respect of contemporary history, it would be easy to point out that they are sometimes egregiously in error in respect of details which cannot be regarded even as of a recondite character. By way of illustration we have only to quote the instance where Nuniz states categorically that the great Krishnadevaraya drove the Kalinga prince, a prisoner of war, to commit suicide by compelling him to exhibit his proficiency in fencing as against a professional fencer of the court. There are inscriptions in the Chittaldroog District of Mysore which show clearly that after the date to which Nuniz's reference points, he was governor of Malega Bennur Sēmē, and made a grant for the merit of his parents and that of his royal master king Krishnadevaraya. In using the chronicle and estimating its historical value, this possibility has to be borne in mind as, after all, except in regard to such matters to which they may have been personally witnesses, their record is a record of hearsay evidence mostly. Valuable as the chronicles are, they have to be used with care.

The first question that one would be curious to know about the history of Vijayanagar is how the empire came into existence. The only source hitherto available happened to be the Muhammadan historians, chiefly Ferishta, and those who wrote the detailed history of the reign of Muhammad Bin Tuglak, such as Zia-ud-Din Barni and the Portuguese chronicles themselves. Taken together they do not give us a clear view of what exactly the movement was, and how exactly the town itself came to be founded. A careful and collated study of the whole mass of evidence now available including these, and the account that Ibn Batulah gives of South India during the years of his stay there, coupled with the light that one gains from the very large number of inscriptions of the Hoysalas published under the authority of the Government of His Highness the Maharaja of Mysore and some few relating to the same dynasty published in South India, goes to give a clear account of the movement that culminated in the foundation of Vijayanagar. More light is thrown upon this early history by the recently discovered manuscript of a Sanskrit historical poem called *Kamparaya-Charitam* by Gangadevi. These go to show that the movement of the Hindus in South India was the reaction produced by the successive invasions of the Muhammadans which in the earlier stages carried fire and sword through the country and proved destructive of all that was cherished as of value to the Hindus in this region. The last great Hoysala, was Vira Ballala III, whom Indian history hitherto represented as a pusillanimous coward who abandoned his country for his own safety by exposing his capital Halebid to destruc-

tion and ensconcing himself for his own safety in the fortified town of Tiruvannamalai. The mass of evidence that has now become available to us makes it clear that he was neither pusillanimous nor a coward; that he adopted what was familiar in Hindu politics as the policy of the reed, of bending before the storm when it was irresistible, and biding the time to build up an active and effectual resistance. Vira Ballala's removal to Tiruvannamalai had far other and nobler patriotic reasons than that of his own personal or domestic safety. It was a question of existence for the Hindu powers. Among them, at the time, the chief were Hoysalas; other than these, the Kakatiyas of Warangal were almost the sole remnants, if we neglect for the time the distant Pandyas immured in Tinnevelly and the rulers of Travancore across the Western Ghats. When Malik Kafur invaded his territory, Vira Ballala showed a ready inclination to enter into a treaty with him as he was in no condition to offer very effective resistance. He obtained terms of treaty that enabled him to develop his resources gradually, so that when Mubarak Khilji invaded the Dakhan and constituted the kingdom of Deogiri into a Mussalman province, the Ballala could take his step in reply thereto to put his northern frontier in a condition of safety from the military point of view and proceed further in the organization of resistance of the united Hindus of the south. He had necessarily to keep it a secret to prevent suspicions which might end in hostilities before he was quite ready to offer effective resistance. His attempt was so far a success that when Khizer Khan invaded the south he went against Ma'abar, the Coromandel coast, without touching the plateau of Mysore.

The invasions of Muhammad Tuglak, however, were of a different character as Muhammad actually wanted to bring the whole of India, including the distant Ma'abar, under his rule. His invasion against his cousin Baha-ud-Din at Saugur and the subsequent invasion that he sent down which completely destroyed Kampli and even partially destroyed Halebid had the same ultimate object in view, though other causes occasioned the sending out of the invasions at the time. This invasion proved to be of a destructive character to the south and succeeded in establishing Muhammadan garrisons both in Madura and Kannanur near Trichinopoly so that the Hoysala found himself between two fires—the threat, that then was real, of Muhammad himself coming upon the south at any time, and the Muhammadan garrisons planted in some forts, the two strategic fortresses of Madura and Kannanur. The Hoysala's move to Tiruvannamalai was for the purpose of placing himself between the two, and operating effectively against the southern Muhammadan garrisons as a necessary measure of a continuation of his own previous policy. This could hardly be done effectively unless he could feel sure that

his northern frontier was safe though on the defensive; with this secure, he might carry on active operations successfully against the southern garrisons. That was the secret of his removal to Tiruvannamalai and the struggle during the last ten years of his life in that region where the Hindu powers had gone out of existence and the Muhammadans were struggling to establish a permanent position as rulers of the kingdom of Ma'abar.

The five brothers whose names are early associated with the foundation of Vijayanagar, are all of them found to have held positions of importance along the treble line of garrisons in this northern frontier and we are given clearly to understand that this arrangement was made by the great Hoysala for the defence of his northern frontier, while he undertook effective operations in the south. He fought and fell in achieving this object of his ambition in a great battle at Trichinopoly, losing his life almost at the moment of victory. In the course of this struggle, at a stage when his position seemed desperate, he had taken the precaution to have his son anointed under the shadow of the walls of the great temple at Hampi and marked the occasion by giving that son the title among others of 'Virupaksha'. There are indications that the foundation of a fortress was laid there to strengthen the fortified place of Anagondi when Kampli had been attacked and destroyed, and the work of fortifying the position round Hampi went on slowly and unobserved through years, the place being known as *Hosapaltana*, a new town, till occasion should call for its being made a royal capital as a result of the shifting of the theatre of war from the southern to the northern frontier. That actually took place some years after the death of this patriotic Hoysala monarch when his generals appointed to defend the northern frontier had carried their allotted function to a satisfactory stage of realization.

One has only to compare with this tale of the foundation of the imperial city of Vijayanagar what one finds recorded in the chronicles of the Portuguese published in the work under review and the one or two scraps of information that one gets in Muhammadan writers such as Barni and Ibn Batutah in connection with the destruction of Kampli to see where the truth lies. But this question is further complicated by the part that the sage Vidyaranya played in the foundation of the imperial city. An effort has been made to rehabilitate the story found recorded in Zia-ud-Din's work that two fugitive brothers from Warangal were the actual founders of Vijayanagar through the efforts of the sage Vidyaranya, and it is they that deserve the credit for the foundation. There is nothing in Zia-ud-Din's statement to carry us so far. The statement actually amounts to nothing more than that the prince of Warangal came to an understanding with the Hoysala monarch, his contemporary, and that together they made

an effort to achieve the independence of the Hindus on this side of the Krishna. With this is confused the somewhat fabulous account of the attack and destruction of Kampli by the Muhammadan armies, and Muhammad's attempt to remove the capital by appointing as viceroys the princes who had been converted to Muhammadanism after the destruction of Kampli, and Nuniz's statement that the two brothers with the good offices of Vidyaranya actually laid the foundations of this city. There are numbers of stories bordering on legend connected with this foundation, partaking of the character of the gossip of the bazaar, which apparently were the sources both of the Muhammadan historians and the Portuguese chronicles. There is absolutely nothing to prevent Vidyatirtha, the holy occupant of the Mutt at Sringery, having lent his countenance and advice, and what was more his blessing, to the new foundation under Vira Ballala III. There is no inconsistency in his disciple Vidyaranya and his brother Sayana having played a prominent part in the administration of the empire at Vijayanagar through the first stages of his history. They are none of them inconsistent with the story and the foundation has been worked out from first-hand evidence of contemporary witnesses in "South India and her Muhammadan Invaders."

The next topic of importance in the history of Vijayanagar on which the advances made by recent research compel reconsideration is the actual date of the death of Devaraya II and the events that followed leading ultimately to the first usurpation under Saluva Narasimha. The working up of the history of this period has become possible through some recent discoveries in literature. A find of the first importance was that of the work *Saluvabhyudayam* in Sanskrit which has for its subject the rise of the Saluvas, particularly of Saluva Narasimha, to power. This combined with one or two other works of literature throws a flood of light upon this dark corner of Vijayanagar history. The attempt at assassination described by Abdur Razaak and the Portuguese chroniclers notwithstanding, Devaraya actually died in 1449 and was succeeded by his son Mallikarjuna otherwise known as Immadi Prauda Devaraya. The commencement of his reign marks the period of aggression on the northern frontier by the two forces of the Bahmani Sultans and the Gajapatis of Orissa. During the generation following there was a constant struggle to hold the northern frontier against the aggressions of the Gajapatis in particular and of the Muhammadans as their accessories. It was this struggle that gave the opportunity for Saluva Narasimha to rise to a position of first importance in the empire. Along with this, there was the usurpation of Mallikarjuna's brother, Virupaksha, who ascended the throne setting aside his two young nephews. The usurper seems to have adopted a root and branch policy of destruction

of rival aspirants, and otherwise carried on a tyrannical administration to the great detriment of the empire. The transactions of this ruler led inevitably to the assumption of power by Saluva Narasimha to prevent the empire breaking up. He was successful in the main in his efforts at the preservation of the integrity of the empire. When he was called away at a ripe age he left behind two young sons who required guardianship, and his loyal general, Narasa Nayaka, was entrusted with this important office. The rise of an individual general to a position of supreme influence in the State naturally unloosed the elements of disorder with the result that there was a disturbance early in his reign which he had to put down with an iron hand. He discharged his trust faithfully and was succeeded by his son Vira Narasimha in the office of regency which the latter soon transformed into that of emperor by setting aside the legitimate ruler. The whole empire got into a state of rebellion in consequence and when the great king Krishnadevaraya ascended the throne of his elder brother, he had a great deal of preliminary work to do notwithstanding the general success that attended the efforts of his elder brother. Much of this was not quite clear till recently when there was a more systematic exploitation of the literary sources of Vijayanagar history. In regard even to the well-known reign of Krishnadevaraya himself many an obscure point has been made clear from literary sources as well as from more recently discovered inscriptions. The history of the reign of Krishnadevaraya after the battle of Raichur is almost a blank in the history of Sewell. The gap can be filled with the aid of the more recently discovered inscriptions and another Sanskrit Kavya bearing on the early part of the reign of King Achyutaraya which has been made available in recent years, not to mention other works of importance, relating to the reign of Krishnadevaraya himself. It is a notorious fact that literature, so far as is known, does not mention the important battle of Raichur. But, as sometimes does happen, that battle happens to be described by another name, and there is little doubt now that what is called the battle of Raichur in the accounts of the Portuguese and possibly even by Muhammadan historians goes by the name Kambavi in Telugu literature where there is at least one undoubted reference. But even so, there remains the fact that the battle actually did not strike the Hindu imagination in the same way that it did that of the Europeans and the Muhammadan contemporary historians. On the period following, beginning with the reign of Achyutaraya we get a great deal of new light from the Achyutabhyudayam and a certain number of other works composed in the court of the Nayaks of Tanjore. The founder of this Nayakship was the husband of Achyutaraya's chief queen's sister and he was appointed the first governor

of Tanjore, as the charge of the Madura viceroyalty was too large. Some welcome light is shed by these new documents upon the actual circumstances that led to the passing of authority from the ruling sovereigns into the hands of the generals of the empire among whom the three brothers Rama, Tirumala and Venkata became the actual rulers.

The history of the empire under these three brothers could, to a very great extent, be unravelled by a very close study of the Telugu work *Ramarajiyamu* composed practically in the last days of the empire and having actually for its subject the rule of Ramaraya. The battle of Talikota itself can now be demonstrated not to have been the end of the empire. The empire did suffer some damage in the capital city, but Tirumala seems still to have been in a condition to play a role similar to that of his brother in the relations between the Muhammadan States of the dismembered Bahmani kingdom. The actual influences that led to the final dismemberment of the empire were both external and internal. The pressure of Golkonda from the north was the external cause, and so long as it operated alone the empire succeeded in holding her own; but when this was added to by the efforts at dismemberment of the viceroys of Madura and, later on, those of Seringapatam, the empire began to decline. Venkata I struggled manfully against this sea of trouble and succeeded in bringing the Madura viceroyalty into loyalty again though he had to countenance the supersession of the Seringapatam viceroyalty by the founders of the kingdom of Mysore. The events of his reign and the wholesale massacre of the royal family which took place under his successor together with the dissensions in the empire are all described graphically in a number of historical poems written at the court of Tanjore both in Sanskrit and Telugu. The battle of Toppur, which decided in favour of the empire is graphically described in the *Raghunadhabhyudayam* of Ramabhadra and in an Alankara work of Veyna Narayana Dikshita in Sanskrit, as also in a Telugu dramatic work of Raghunatha's son Vijayaraghava. On this particular theme Sewell in 1900 could go only so far as to give us extracts from Barradas, but we can go much farther now and carry the history on to the next generation. Notwithstanding all these great advances, the reprint of the work now before us has its value as the starting point in the further reconstruction of the history of Vijayanagar, which it would have been well if Mr. Sewell himself had the health and strength to attempt, but which none the less will be done by others as the historian of Vijayanagar finds himself too advanced in years to undertake the work.

HEROINES OF EAST AND WEST (II).

THE heroines whose stories we are now to study were all forced to do the work of men, two of them even being obliged to take command on the battlefield, while the other two ruled over kingdoms in their husbands' stead. They were women inspired by the sort of patriotism that acts to the point of suffering, and does not merely talk.

The Warrior.—India's story supplies us with an unusual number of warrior women. It is a curious fact that in a land where women are thought of as gentle, retiring, submissive, there should be more records of those who have won fame in the ranks of war, than there are in the annals of the history of Europe, whose women are generally believed to be of a more vigorous and masculine type. Time would fail me were I to tell of Tarabai, Chand Bibi, Nur Jehan, Raziyat Begum. The heroine I have chosen belongs to comparatively modern times, Lakshmibai, the famous Rani of Jhansi. A careful and exhaustive history of the Rani has been written in Marathi and translated into Kanarese, so that it is within the reach of a wide circle of readers, and as Macaulay says: "A people which takes no pride in the noble achievements of their ancestors will never achieve anything worthy to be remembered with pride by their descendants." The aim of the author is to prove that his heroine was not the fierce rebel she is usually considered to have been, and certainly not "the Jezebel of India" as one writer describes her. Our author certainly makes out a very good case, supporting his arguments by copious extracts from Malleson's *History of the Indian Mutiny*, and from many state papers and letters of contemporary British officials in India.

The Rani Lakshmibai was the daughter of an employee of the Peshwa Baji Rao, named Moropant, and of Bhagirathi his wife. She was born on 19th November 1835, at Benares, whither the family had gone on a pilgrimage. Her birth at so sacred a spot was considered a good omen. The astrologer who was consulted as to her horoscope declared she was destined to be a queen and a woman of remarkable heroism. Her mother died when she was three or four years old and the little Manubai, as she was then called, was her father's constant companion. Her playmates were mostly boys, and her stepmother said of her: "In her childhood before her marriage, Rani Lakshmibai used to love flying kites, beating drums and playing at being a queen. She used to make some of her companions her servants and order that they should

have no food if they did not do the work she set them." She was educated with Nana Saheb, the Peshwa's adopted son, played mock battles, rode on horseback and on elephants as he did.

While Moropant was hunting for a husband for his little girl, an astrologer came from Jhansi to see Baji Rao. To him Moropant showed the horoscope and he declared that she was certainly destined to be a queen and suggested that the father should approach Gangadhara Rao, the Rana of Jhansi, who had just lost his wife. Moropant was a man of no particular rank, but he had the favour and support of the Peshwa and the marriage was arranged and celebrated at Jhansi in 1842. The historian adds: "Since it seemed to all people that when the bride and bridegroom entered the palace, it was as if the goddess Lakshmi herself had entered, they gave to Manubai the name of Lakshmibai."

In 1851, after a pilgrimage to Benares, a baby boy was born, but died within three months. Grief over the loss of his son so affected Gangadhara Rao's health that he was never the same again. He grew so weak that he determined to adopt a son in case he died without male issue. The heir he chose was a boy of eight, Ananda Rao, to whom he gave his own name. In the letter to Major Ellis announcing what he had done he requests the British to allow his wife to act as regent till the child attains his majority. On November 21, 1853, he died, in the confident belief that his adoption of an heir would be recognized by the British. Lord Dalhousie, however, believed that this was one of the cases in which the annexation of the territory by the British would be for the benefit of all concerned and refused to acknowledge the heir. The Rani pleaded the loyalty of her husband's house to the British Government, the services rendered by Jhansi, the terms of the treaty with the British, precedents showing that the favour asked for Jhansi had been yielded to other states, but Dalhousie refused to grant her request. Of the subsequent treatment of the Rani and her subjects Malleson says: "The British Government regarded her anger and her remonstrances with careless indifference. They did what was even worse. They added meanness to insult. On the confiscation of the state, they had granted to the widowed Rani a pension of £6,000 a year. The Rani had first refused, but had ultimately agreed to accept this pension. Her indignation may be imagined when she found herself called upon to pay, out of a sum which she regarded as a mere pittance, the debts of her late husband." "Bitter as was her remonstrance against a course which she considered not less as an insult than as a fraud, it was unavailing. Uselessly she urged that the British had taken the debts of the late ruler with the kingdom of which they had despoiled her. Mr. Colvin insisted and caused the amount to be deducted from her pension. Other grievances

such as the slaughter of kine amid a Hindu population and resumption of grants made by former rulers for the support of Hindu temples, while fomenting the discontents of the population with their change of masters, formed subject for further remonstrance: but the personal indignity was that which rankled most deeply in the breast of this high-spirited lady, and made her hail with gratitude the symptoms of disaffection which, in the early part of 1857, began to appear amongst the native soldiers of the hated English."

But the English officers in charge of Jhansi State had not the slightest suspicion of any unrest there. Again and again they wrote with confidence of the loyalty of the Indian troops. It was not till the beginning of June, 1857, that signs of revolt began to appear. The small company of Europeans shut themselves up in the fort. After a short and heroic defence they were offered their lives by the rebels, if they would lay down their arms and evacuate the fort. Trusting these promises they surrendered, only to be killed at once on leaving their place of refuge. Most English historians represent the Rani as smarting under a sense of her wrongs and therefore encouraging the rebels in their brutality. The Indian historian referred to above says that Captain Gordon looked to her for assistance and she gave such help as was in her power. This information he gets from the following letter written by a Mr. Martin in 1889 to the Rani's adopted son: "Your poor mother was very unjustly and cruelly dealt with and no one knows her true case as I do. The poor thing took no part whatever in the massacre of the European residents of Jhansi in June, 1857. On the contrary she supplied them with food for two days after they had gone into the fort, got 100 matchlock men from Kurrura, and sent them to assist us, but after being kept a day in the fort, they were sent away in the evening. She then advised Major Skeene and Captain Gordon to fly at once to Dattia and place themselves under the Raja's protection, but this even they would not do: and finally they were all massacred by our own troops." It is also said that she rescued two officers and a lady who had escaped the general massacre. This fact was reported in the *London Gazette*, May 6th, 1858. Kay in his *Sepoy War* says: "I have been informed, on good authority, that none of the Rani's servants were present on the occasion of the massacre." After the massacre the rebels demanded money for their forces, and she was finally obliged to give it, as they threatened to destroy her palace if she refused. They then reinstated her as Rani of Jhansi. In the disturbed days that followed she showed much capability and heroism in the defence of her capital against Nathekan, the Dewan of Bundelkhand. She is said to have sent warnings to various British officials in the neighbourhood which enabled them to guard against revolt, and also to

have declared in many documents that she was merely holding Jhansi for the British. But many of her letters were intercepted by enemies, and British officials as a rule doubted her sincerity.

When the rebels retired, Lakshimbai took into her own hands the governance of Jhansi State. Everything about her appealed to the imagination of the people. She restored that pomp and circumstance that had been lacking during the short period of British control. She usually affected a somewhat manly style of dress. On her head she wore a cap of scarlet silk with a string of pearls and rubies laced into it, round her neck a valuable diamond necklace and on her wrists diamond bracelets. After her husband's death, says the historian, she was sparing in the use of jewels. Sometimes she wore a white silk bodice and sari: at other times a bodice freely opened in front, drawn tightly into a gold embroidered belt in which were stuck pistols and a dagger which, it was whispered, had been dipped in deadly poison, and instead of a skirt a pair of loose trousers. She rose at five, spent the first hours of the day in bathing, tulasi worship and other religious ceremonies, listened to the court singers and to readings from the Puranas: then she bestowed gifts upon her almoners and received presents in return, of which she would accept a portion and give the rest for distribution among others. She was said to be exceedingly generous and hers was a type of generosity which strongly appealed to her people. For instance, a poor Brahmin whose wife had died was anxious to marry a beautiful young girl for whom a large dowry was demanded. The Rani paid the dowry and all the wedding expenses. Once on her way to worship she noticed numbers of poor shivering beggars. She set all the tailors in the city to work and in four days presented those among her subjects who were insufficiently clothed, with the garments needful. The object of her worship was the goddess Mahalakshmi, whose shrine was in the centre of a lake. To this place she would pay a daily visit, sometimes on horseback, sometimes in a magnificent palanquin carried by four or five beautiful maidens gorgeously arrayed in gold embroidered silk, wearing scarlet shoes and carrying in one hand silver-or-gold handled horse-hair fans. On these occasions she was always preceded by the royal band. When sitting in durbar, as she did every day, her ready wit and keen powers of judgment were evident to all, and she frequently gave sentence both in civil and criminal cases. She gave encouragement to the learned at her court and to all skilled workmen, and had an extraordinary knowledge of horses.

It was when Sir Hugh Rose was put in charge of the campaign in Central India that the opportunity came for the Rani to show her military skill and powers. According to our historian the Rani's attempts

to inform the English of her loyal intentions in holding Jhansi were all made fruitless by the carelessness and mismanagement of some of her officials. Consequently, Sir Hugh Rose regarded her as a ruthless rebel and laid siege to Jhansi. The Rani personally superintended all defensive measures, placing the guns and constantly inspecting the troops. She made a heroic defence, but she had a capable and determined adversary in Sir Hugh Rose. Onlookers have left vivid descriptions of the last terrible struggle. The Rani seemed to be ubiquitous and her men kept up a veritable hail of shot and shell upon the attackers. The street conflicts were desperate, the rebels fighting to the death like tigers. When one hears of all the horrors of the Mutiny and of the fierce passions aroused on both sides, it is comforting to note that our historian is able to assert that though the British soldiers were relentless to all found with arms, they showed kindness and consideration to the women and children, and also spared a number of harmless village folk who had taken refuge in a garden.

When the Rani saw that there was no hope for her city, she meditated burning herself in her palace, but an old councillor of hers told her that defeat must be the fruit of sin in a former birth and that she would but be sowing more evil seed for punishment in a future birth did she take her own life. So following his advice she fled by night with a few companions, to Kalpi. Her escape was marvellous and due partly to the skill of her guides and partly to her magnificent horsemanship. At Kalpi she and Tantya Topi were put in command.

In the battle when the Peshwa and his army were losing heart she rode forward like the wind on her white horse and inspired them with fresh courage. Her daring and the rapidity of her movements amazed the British. Their troops were weakened by sunstroke for it was the height of the hot weather. Had it not been for the opportune arrival of a camel corps the Rani would have won the day.

The final scene in the tragedy of her life took place at Gwalior. It is generally thought that the attack on Gwalior was made at the Rani's advice. Of the four confederates Malleson dismisses the Peshwa and the Newab of Banda as possessed neither of the character nor courage to conceive a plan so vast and daring. Tantya Topi in his memoirs takes no credit for the act. As Malleson says, "The fourth conspirator (the Rani) possessed the genius, the daring, the despair necessary for the conception of great deeds." There is abundance of evidence to show how critical Lord Canning and others felt the situation to be. Had Gwalior joined the rebels it was possible that all the south might have been lost. "If the Scindia joins the mutiny," says Canning, "I shall have to pack off to-morrow."

Scindia remained loyal but most of his army deserted and Gwalior fell into the hands of the confederates. The Peshwa and Tantya Topi, overjoyed and elated, celebrated their success by days of public festivity and lavish feeding of Brahmins. The Rani Saheb, full of misgiving, urged them to spend their time and money in strengthening their army and defence, as the English would of a surety come upon them in vengeance. But her advice fell upon deaf ears. The city fell into the Peshwa's hands at the end of May. By the middle of June, Sir Hugh Rose arrived. The Peshwa's army was soon defeated, but the heroic Lakshmibai was in the forefront of her troops reanimating them by her courage. This is Malleson's account: "Clad in the attire of a man and mounted on horseback, the Rani of Jhansi might have been seen animating her troops throughout the day. When inch by inch the British troops pressed through the defile and when, reaching its summit, Smith ordered the Hussars to charge, the Rani of Jhansi boldly fronted the British horsemen. When her comrades failed her, her horse, in spite of her efforts, carried her along with the others. With them she might have escaped, but that her horse, crossing the canal near the cantonment, stumbled and fell. A Hussar close upon her track, ignorant of her sex and rank, cut her down. She fell to rise no more. That night her devoted followers, determined that the English should not boast that they had captured her, even dead, burned the body." The body of her sister, who also died fighting, was burnt with her. English writers are unanimous in their praise of her courage and ability. Her conqueror, Sir Hugh Rose, in his general order, said that the best man upon the side of the enemy was the woman found dead—the Rani of Jhansi.

It is a marvellous story. That a young woman of twenty-three, who for most of her life had lived behind the purdah, should exhaust all the ingenuity and skill and energy of an experienced and determined general before she could be overcome, is a fact to give us pause. Perhaps the most amazing thing of all is her dauntless courage and persistence in the face of disaster and in spite of the unreliability of so many of her allies. We only once read of her courage failing, when suicide seemed to her the only course.

One cannot read her story without feeling what a tragedy it was that a woman possessed of such outstanding ability and force of character should not have been allowed to use her gifts for her country's good, and that her career met with such an untimely end. As time softens the bitter feelings roused by the Mutiny, she is likely to receive more justice at the hand of English historians. Several of them speak of her as the Indian Boadicea or the Indian Joan of Arc, and it is the latter heroine especially that occurs naturally to the mind as her Western counterpart.

The Maid of France was not twenty when she met her tragic end: the Rani was twenty-three. In her picturesque *Life of Jeanne d'Arc*, Mrs. Oliphant says: "That Jacques d'Arc's daughter, the little girl over her sewing, whose only fault was that she went to church too often, should have the genius of a soldier, is too bewildering to say. A poet, yes, an inspiring influence leading on to miraculous victory: but a general, skilful with the rude artillery of the time, divining the better way in strategy,—this is a wonder beyond the reach of our faculties: yet according to Alençon, Dunois, and other military authorities, it was true."

Jeanne d'Arc's upbringing had been less of a preparation for a military career than that of Lakshmibai. The Rani had at least shared the education of a prince and learnt to ride on horses and elephants. Joan was a simple peasant girl born in 1412 at Domrémy in Eastern France, a quiet spot where the news of the warring world was but slow to filter through. All the education she ever had came from her mother. She did not know *a* from *b*, but her mother taught her simple prayers, and while they plied their needle or their distaff, would beguile the time with stories of the saints, or Bible heroes, or possibly incidents of the war. Jeanne says her mother taught her to sew and spin, and so well that she did not think any woman in Rouen could teach her anything. She was deeply religious and loved to get away along to the little church to pray. As she sat at her cottage door spinning, she would listen entranced to the chiming of the church bells. As Mrs. Oliphant says of her, "The love of God, and that love of country which has nothing to say to political patriotism, but translates itself in an ardent longing and desire to do 'some excellent thing' for the benefit and glory of that country, and to heal its wounds—were the two principles of her life."

It was when she was twelve years old that she began to hear her voices. At first it was merely a voice telling her to be a good child and go often to church. Then she was conscious of the presence of winged forms in radiant light, and at last it seemed to her that it was Michael the Archangel telling her the sad story of her suffering country, and still bidding her be good, for God would help her. One day the visionary figure bade her go and help restore the kingdom to the rightful king. He gave her detailed instructions, that she was to go to Messire de Baudricourt at Vaucouleurs, and that St. Catherine and St. Margaret would help. Like many another conscious of a call from God to undertake a task beyond their poor human strength, she wept and was afraid. But the burden of the sorrow of France was heavy upon her. For four years she kept to herself the mystery of the voices, and to all outward appearance was just a simple, healthy village girl, often shy when teased for being such a devotee. But the sense of her call became more and

more imperative. She took the opportunity of a visit to a sympathetic uncle to confide in him and ask him to take her to Vaucouleurs. There when she told her errand she was greeted with a burst of merriment. "Box her ears," said Robert de Baudricourt, "and send her home to her mother."

Jeanne was obliged to return home, but she was more convinced than ever of her divine mission. There were no tears and pleading of inability now. She had to endure much harshness and fierce disapproval from her father. Her mother resorted to the usual device of mothers to rid enterprising daughters of strange fancies. She tried to arrange a marriage. But Jeanne, obedient in all else, gently resisted. Yet she was still the sweet, gentle girl they had known, free from anything hysterical or eccentric.

Once again Jeanne went to Vaucouleurs, and gradually her simplicity and sincerity won Baudricourt and others to her side. A visit she paid to the sick Duke of Lorraine led to her being at last summoned to court. In the garb of a young soldier, and escorted by two gentlemen, the King's messengers, and some attendants, she started on her dangerous way. Her father still remained obdurate, pouring fierce invective upon her. She wrote a letter to her parents asking their pardon for obeying God rather than them, and bidding them farewell. Her soul was calm and confident. "I was born for this," she repeated again and again, and she proceeded safely on her way in spite of surrounding dangers.

She was given an audience with the Dauphin at Chinon. In order to test the reliability of her claims he mixed in the throng of nobles. Jeanne went straight up to him, though he was not a kingly-looking figure, and said "Gentle Dauphin, I am Jeanne the Maid. I am sent to you by the King of Heaven to tell you that you shall be consecrated and crowned at Rheims, and shall be lieutenant of the King of Heaven, who is King of France." Charles took her aside and Jeanne repeated: "I have to tell you on the part of my Lord that you are the true heir of France and son of the King. He has sent me to conduct you to Rheims that you may receive your consecration and your crown, if you will." This seemed to the weak young prince like an answer to prayer, for the action of his parents in bestowing the crown on Henry V, and speaking of him in the Treaty of Troyes as the "so-called Dauphin," seems to have made him doubt whether there were the stain of illegitimacy upon him and he had prayed that God would make the matter clear.

But Jeanne's difficulties were by no means at an end when she won the confidence of the Dauphin. She was subjected to an examination of her faith by half a dozen bishops and then sent to Poitiers for a further examination by the university and local parliament. She was also

subjected to innumerable private inquests. Then she returned to Chinon where the Queens and their ladies tested her innocence and purity in a most searching way. She was sorely tried by all this delay, but her sincerity won the day. "After hearing all these reports," we are told, "the King taking into consideration the great goodness that was in the Maid and that she declared herself to be sent by God, it was by the said Seigneur and his council determined that from henceforward he should make use of her for his wars since it was for this that she was sent."

Jeanne was now given a house, a staff, the chief of which, Jean d'Aulon, followed her to the end with the greatest devotion, and a chaplain, Jean Pasquerel, who was also devoted to her. She sent for a sword which she said would be found under the altar of the Church of St. Catherine of Fierbois, where she had stopped for mass on her way to Chinon. The clergy of the church cleaned and polished it and put it in a crimson velvet scabbard embroidered with golden fleur-de-lys. Her standard was of white linen fringed with silk. The design she said had been dictated to her by her saints. There was a figure of the Saviour holding a globe in His hands while an angel knelt at either side in adoration. At the foot was inscribed "Jhesus' Maria." This banner she always carried herself as it prevented her from using her sword, for the thought of shedding blood was repellent to her. Moreover she declared that her voices had said: "Take the standard on the part of God and carry it boldly." Dressed in white armour inlaid with silver, a pure and dazzling figure, she marched with her little army to Orleans. From Blois she wrote a letter to the Duke of Bedford, asking him on behalf of God to raise the siege, make peace, and join the French in a Crusade.

She was received as an angel of God by the starving people of Orleans, and welcomed also by Dunois, the officer in charge of the defence. But throughout the whole of her career, Jeanne, like the Rani of Jhansi, suffered from the jealousy and opposition of other captains. "A hussy from the fields," they called her scornfully. There were only a few noble exceptions. When Jeanne realized the hate of the French officers who grudged her every triumph, she was angry and disappointed. However, she went on quietly with what she regarded as her part of the work and once more summoned Talbot and Glasdale to return home. She was greeted with infuriated shouts and a storm of abusive epithets which brought the tears to her eyes. But abuse was the only missile they hurled. The French regarded it as miraculous that the English suffered her to pass under their very walls without firing a shot.

There is no need to tell in detail the story of the siege. Jeanne inspired the failing courage of the French and paralysed the English till those who had thought themselves invincible acknowledged defeat and

raised the siege. She was invincible because she was sure she was doing God's work. Her voices told her when a sortie party of which she had known nothing was being put to flight. She galloped to the rescue with a straggling band of followers at her heels, hard put to it to keep pace with her flying steed. Her presence turned defeat into victory. She was twice wounded but she refused to leave the fray when fighting was going on. When Dunois counselled retreat she went into a vineyard to listen to her voices and returned to lead her men to victory and the capture of Les Tourelles, the towers in front of the city. But when the bells of Orleans pealed in triumph, Jeanne spent the time weeping and praying for the souls of her enemies.

Having relieved Orleans, Jeanne marched straight back to Tours in order to urge the dilatory Dauphin to set out at once for Rheims. But there were plenty of jealous counsellors to encourage the indolent prince in his dislike of anything involving danger or effort. They decided that his precious person should not be risked on the journey to Rheims as long as towns on the way were held by the English. Jeanne therefore promised to clear the Loire valley of the enemy. One town after another fell before her small force, till at last she defeated the English under Talbot himself at Patay. It was the first time for nearly a hundred years that the French had succeeded in conquering their foe in the fair and open field. To the English soldiers the Maid was a witch whose sorceries alone unmanned them, and there were not wanting men on the French side who declared her power to be of the devil. But ever in the fiercest fight the figure of the Maid gleams before us pure and pitiful, still withholding her hands from slaughter and tenderly comforting even a dying enemy with words of religious hope and consolation.

It was no longer possible for even the most timid counsellor to keep the indolent prince still dallying. Even Rheims itself sent a deputation of citizens with the keys of the town to invite him to enter. Jeanne rode beside the King, holding her banner aloft. Here she had the joy of meeting her father and uncle and some peasants of Domrémy, to whom she gave a generous and loving welcome. Her father's forgiveness brought comfort to her heart, though it was none too readily granted.

The coronation was a brilliant scene and calculated to awake the deepest emotion in the heart of the Maid. When the King stood there anointed and the lofty cathedral re-echoed with cries of "Noel, Noel," Jeanne could contain herself no longer. Stepping out from the gay throng of nobles she flung herself at the King's feet. "Gentle King," she cried with tears, "how is the pleasure of God fulfilled." And then "Lord, now lettest Thou Thy servant depart in peace," she said with another burst of emotion.

Jeanne had reached the height of her fame. From all over Europe came messages of homage, and royal personages besought her help. Charles knighted two of her brothers and gave her leave to wear on her shield a coat of arms bearing the fleur-de-lys. But the only reward Jeanne asked was that the villagers of Domrémy might be free from taxation.

She longed to return home but seems to have felt that her duty as a soldier demanded that she should not rest till the English were driven out of France. Intrigue was thick around her and she could not persuade the dilatory Charles to march straight on Paris. He was all the time engaged in trying to make a secret truce with Burgundy. The Maid, distrusting the Duke, was much annoyed when she heard of the truce. At last Charles, wearied out with her importunity, allowed her to attack Paris, but the first assault was not successful. Jeanne was badly wounded: she lay crying out to her soldiers to persevere, but darkness came on and they carried her protesting from the field. She soon discovered that the newly crowned Dauphin was working against her. Jeanne hung up her arms in the Cathedral at St. Denis. During the autumn she was obliged to look on helpless while all the work she had done was undone and the English regained the ground lost.

At last she could bear it no longer and started off with a small band of faithful friends. She met with some successes and travelled about trying to cheer downhearted garrisons. At last the news came that the Duke of Burgundy was attacking Compiègne, which refused to yield in spite of the promise given by Charles to hand over the town.

Jeanne rode hastily to the relief of the city. Her plan of attack was daring but she had left her flank exposed to the English. Things however were going well when the soldiers in Jeanne's rear took fright at the sight of an attacking party of English. She was surrounded on all sides, but refused to surrender, hoping she might be killed in the fray. Her voices had told her that her death would come by midsummer. But an English archer seized her and handed her over to the Duke of Luxembourg. Duke John held her to ransom, but the King offered none. Nor did one of her friends attempt her rescue. The Archbishop, ever her enemy, wrote to Rheims, telling the people she was taken because of her vanity and pride, because she "would not take counsel but do her own pleasure."

Thus it came to pass that Charles of Luxembourg who was in need of money sold her to the English. She was taken to Rouen and had to suffer incredible harshness. She was kept in a cage bound hands and feet and throat to a pillar and watched incessantly by English soldiers. Though during her trial she was loosed from her cage, she could never escape the hateful scrutiny of the coarse soldiery.

Her trial began on February 21st, 1431. All the examiners were, her enemies and she was allowed no lawyer. She would take no oath promising to speak the truth wherever her Lord would let her. She would make no promise not to attempt escape. Her judges tried to shake her faith in her visions, but the voices she continued to hear, and she said they had foretold her capture, while assuring her she should soon be free. They tried in every way to bewilder her, by puzzling cross questions, by shouting loudly together, till she begged them to speak one at a time. She begged to be taken to the Pope, but Bishop Cauchon, the chief judge, angrily bade her hold her tongue. The Maid behaved so simply and modestly throughout the trial that public opinion even in that land of enemies and foreigners began to veer round in her favour. A select company of judges was therefore chosen to examine her privately in the prison.

They next sent a list of the accusations against her, together with a distorted account of her replies, to the University of Paris. The University declared her to be a sorceress and traitor and that her voices were evil spirits.

She was taken to a public place to hear her sentence read. Those round her urged her to abjure. They had two papers ready, one declaring she had been led away by evil spirits, the other, much shorter, saying she would wear woman's clothes and do all the Church should order. The thought of the fire and stake was terrible and she was wearied out with the trial and prison fever. "I will submit to the Church. I will sign," she cried with tears. She was given a paper to sign—but purposely it was the wrong one. She marked it with a cross. They further deceived her by giving her back to the charge of English soldiers. Then they came and told her she must wear woman's dress. She said she would submit to the Church's orders in all things. But once more in the despair and misery of that dreadful day her voices came. St. Catherine and St. Margaret assured her that she was forgiven for the unwitting treason of her abjuration, and as a sign of her refusal of submission she again donned her manly garb. She was told by the Bishop that for this disobedience she must suffer death.

Three stages had been erected in the market place. Jeanne was led forward into the presence of a great throng of judges, nobles and prelates. She had on her woman's dress. Her head was shaved and on it was placed a cap with the inscription "heretic." The Bishop preached her a sermon concluding, "The Church can defend thee no longer: she delivers thee up to the law for justice."

Weeping Jeanne knelt and prayed. She begged forgiveness and spoke a few words defending the King, to whom in all his unworthiness

she had been so faithful. She asked for a cross. An English soldier broke his staff and made her one. The fire was kindled. Jeanne wept for her enemies. "Rouen, Rouen, I have much fear thou wilt suffer for my death." To the end her mind dwelt more in sorrow upon others than upon her own agony. Even the judges were moved and some one cried: "We are lost. We have killed a saint."

After Charles VII was peacefully seated on the throne he responded to the entreaties of Jeanne's mother and instituted an enquiry into the accusation made against the Maid. A new trial was held in the Cathedral at Paris. Crowds of witnesses testified to the Maid's goodness and courage and declared she came from God. The final sentence read at Rouen declared that she had never relapsed, but had been shamefully tricked. The French thus tardily began to make amends; and the Church of Rome, whose members had persecuted her, have added her name to the list of their saints. English writers vie with one another in doing her honour.

As Mrs. Oliphant truly says "The highest saint is born to martyrdom. To serve God for nought is the greatest distinction which He reserves for His chosen."

The Statesman.—The last type of heroine I have chosen is the queen-statesman, and as examples Ahalyabai of Indore and Elizabeth of Thuringia. Ahalyabai has sometimes been compared with our Queen Elizabeth, and as far as the length and glory of her reign and the strength of her rule are concerned, the comparison is a fitting one. But Elizabeth of England lacked the gentle womanliness of Ahalyabai and would have been quite unable to understand the latter's religious earnestness. Though Elizabeth of Thuringia never ruled independently, and though her career was so short and tragic, yet in character and ideals, and even in some of the experiences of her life, she is a far fitter counterpart of Ahalyabai than Elizabeth of England.

Ahalyabai, queen of Indore, was of humble birth. Her father was Anandasindha, a cultivator of Kurubar caste who lived in the village of Vatharadi in the Ahmadnagar district. He and his wife had long been childless and the story runs that in spite of gifts and pilgrimages no answer was given to their prayer for a child. One day a holy man visited the house and noticing the sadness of Anandasindha's wife, asked what was the cause. On being told, he bade the couple go worship at the shrine of Sri Jagadambara at Kolhapur. After they had spent a year worshipping the goddess, Anandasindha had a vision, in which, so the story says, the goddess appeared to him, telling him that she was so pleased with his devotion that she herself would become incarnate as his daughter. The couple went home rejoicing and not long after Ahalya

was born. This was in 1735. Thus do the Mahratta historians account for the remarkable character of the famous queen.

Ahalye's horoscope showed that she was destined for greatness. She was to marry a Raja and rule for long years as a great and famous queen.

The little girl was not beautiful but there was a grace and charm and intelligence about her that won the hearts of all. She was very studious and a Brahmin friend of Anandarao, who was managing a small school in the village, and had no children of his own, looked upon her as a daughter and taught her reading and writing with his other pupils. She loved reading the sacred books and especially did she delight in the stories of Sita, Draupadi, Damayanti, Savitri and other heroines of old, longing that she might follow in their footsteps. It was from such stories as these that she learnt to bear with courage the sorrows and difficulties that she had to face in later years.

When she was nine years old her father, eager to fulfil the predictions of her horoscope, began to search for a suitable husband. But as he was poor and of humble family no worthy suitor offered himself. Anandarao decided that the matter must be left to God and destiny.

About this time the Mahratta armies were moving southwards after a victorious campaign in the north. Raghunatha Rao, the brother of the Peshwa Balajibaji Rao, Malharao Holkar, and his son Khanda Rao arrived at Vatharadi to worship at the temple opposite Anandarao's house, and give thanks for their victory. The Brahmin teacher had given a holiday to his pupils and was talking to Raghunatha Rao, when the little Ahalye, always eager to be in her teacher's company, appeared on the scene. The generals were much impressed with her appearance and learnt her story from the Brahmin. Holkar at once decided that she was the wife he needed for his son. Then and there the matter was settled. A month later the wedding was celebrated with great splendour.

Malhar Rao was devoted to his little daughter-in-law. She served him with devotion and obedience, and he always declared that from the moment she entered his house his military expeditions were wonderfully victorious. Her mother-in-law was a capable, imperious, hot-tempered woman, but Ahalyabai was quick to understand her character and was so gentle and humble that she received nothing but kind words from her.

As she grew older she tried more and more to model her behaviour on ideals of her favourite heroines. She was always truthful and would have nothing to do with those who told lies and were deceitful, and by her example she cleansed the palace of gossip. She was considerate to the servants and deeply religious. Towards her husband she was always the ideal Hindu wife. She would only go to rest when she had seen him

asleep, and she was up before dawn that she might complete her morning worship and attend to his needs before he went off hunting. However late he returned she would never have her meal until he had dined. They had two children, a son Mali Rao and a daughter Manchabai.

Those first ten years of her married life were blissful indeed, but in 1754 her husband was killed while on an expedition to punish the Bhils and from that time sorrow seemed to dog her footsteps. Ahalyabai wished to become a sati, but her heart was touched by the entreaties of old Malhar Rao. "Child, my son has left me. Will you have no mercy and go too? I will think that it is Ahalya who has died and Khande who is alive. Do not be cruel and leave me and the children." So she shaved her hair and donned the widow's white dress and devoted herself still more whole-heartedly to the service of her father-in-law.

Malhar Rao had dreams of a great Mahratta Empire and success seemed to attend upon him. Even Delhi was in his hands. But before his schemes had ripened he died. Mali Rao succeeded him, but he was strangely, viciously cruel. The people refused to accept him as king, but the Peshwa insisted. He seems specially to have directed his spite against the Brahmins whom his mother delighted to honour. If she gave them gifts of clothes, he would hide scorpions in the folds; if she gave them pots full of gold coins, he would put in wasps and centipedes. To the relief of all he died nine months after his accession.

Ahalyabai announced that she would undertake the government and promised to rule wisely and well. But Gangadhar Jaswant, the court priest, urged her to adopt a son and hand over the kingdom to him; he, Gangadhar, acting as regent till the boy attained his majority. But Ahalya answered proudly: "I, a Raja's wife and a Raja's mother, am able to manage my kingdom. In religious matters I obey thee: in state matters I am supreme." Gangadhar Jaswant was furious and invited Raghoba Rao, uncle of the Peshwa Madhava Rao, to come and seize the kingdom.

Raghoba, eager for a kingdom of his own, gathered a band of malcontents. They wrote urging the Rani to adopt a son and appoint a regent. They pointed out that the Rajputs and English were threatening her kingdom and she would not be able to take the field against them. But she replied that she knew all their plans and that evil deeds would bear evil fruit.

Raghoba determined to humble her pride but before anything more could be done the chief conspirators found themselves in prison. Raghoba was soon set free and allowed to remain as a guest. He could not help admiring the queen's ability. Gangadhar apologised and was forgiven. The rest took oaths of allegiance and were set free with a severe reprimand.

When the Rajputs, it is said at Raghoba's instigation, threatened Indore, Ahalyabai summoned Bhonsle, the Gaekwar of Baroda, to her aid. The Rajputs, seeing they would have little chance against such strong forces, wisely retired.

Ahalyabai promised to give her daughter in marriage to whosoever would rid her kingdom of dacoits and thugs. Jaswant Rao succeeding in the difficult and dangerous task was married to Manchabai.

The queen showed wonderful insight in the choice of her officials. Her general was Tukoji, a man of low caste, but an able commander-in-chief. On one occasion however, he seized the property of a man who died without an heir. Ahalyabai was furious. Bidding the widow adopt an heir, she returned the property to her and calling Tukoji said: "The presence of you and your army in Indore will cause great suffering to the people, I see, so take your army and go." Tukoji, however, acknowledged his fault and was pardoned. She chose her officers with care but she kept an eagle eye on all her affairs lest her people should be oppressed, and loving and gentle as she was by nature, she was stern and unrelenting in the punishment of evil-doing. On another occasion, a rich man, Bhimadas, died without an heir. An official asked the widow to give him some of her wealth as a bribe, and on her refusal said he would let all her wealth go to the State. Ahalyabai hearing of this dismissed the official and ordered the woman to adopt an heir.

Ahalyabai was simplicity itself. She never desired anyone's wealth. Two rich widows offered her all their property saying they would go on pilgrimage. "You cannot so easily shirk your responsibilities," she replied, "I do not want your wealth, and if you do not want it, then go and find where tanks, rest houses and temples are needed and spend the money entrusted to you for the welfare of others."

Another remarkable characteristic of the queen was her dislike of flattery. Lord Beaconsfield is said to have declared once to Matthew Arnold: "Every one likes flattery, and when you come to royalty you should lay it on with a trowel." But if that is true, which I very greatly doubt, Ahalyabai is the exception that proves the rule. A poet, hoping for reward, once wrote in her honour one of those highly laudatory poems in which would-be winners of favours delight. Ahalyabai flung it into the river. "Sir Poet," she said, "it is useless to praise an ignorant woman like me. Praise rather the all-knowing God."

Her daily round resembled that of the Rani of Jhansi in times of peace. She rose at dawn that she might begin the day with meditation, prayer and the reading of the Puranas. Then she gave gifts to the poor. After her meal she had a short rest and then attended her council, where she scrutinized the accounts and settled disputes. At sunset she returned

home and after evening worship attended to other state matters till 11 p.m. when she went to rest. She was very strict in the observance of fasts and would spend such days in worship. She was lavish in her gifts to the poor and suffering, and to the religious. She urged those whose hearts were sore from bereavement to look upon the world as their family and to forget their own sorrow in ceaseless care for other sorrowing and needy ones. Her sympathetic heart went out even to the animals. She was a vegetarian by conviction, and she would buy plots of land in each village as feeding grounds for birds so that they need not be stoned and shot by the farmers. She sent her servants to feed the weary oxen which the farmer might be overworking and cared for old and useless domestic animals.

She died at the age of 70, overwhelmed with grief when her daughter became a sati on the death of her husband. During the thirty years of her beneficent rule the obscure village of Indore became a large and important city and the state was a power to be reckoned with.

Most saints of the West have their chroniclers, more or less veracious, who take a devout delight in recording all the details they can amass, the more miraculous the better. Frequently the poor saint is so buried under a mass of confusing and often irrelevant legend that it is difficult to get any clear impression of his personality. But St. Elizabeth of Thuringia, or Elizabeth of Hungary as she is better known, was fortunate in having as one of her first biographers a certain Dietrich, a friar of the Dominican order, and almost her contemporary, who visited monasteries, castles and towns, interrogated the most aged and veracious persons, and wrote letters seeking for completeness of truth in all things. He calls "God and the angels elect to witness that he had inserted nothing but what could be well vouched for." William Canton has recently written a very touching story of Elizabeth's life based on the researches of Dietrich. Kingsley, in his *Saint's Tragedy*, has been at pains to give us a true and faithful picture of Elizabeth's brief and beautiful life.

On a summer night in 1207 a little daughter was born to Andreas, King of Hungary. It is said that her birth was announced that very night in distant Thuringia to Hermann the Landgrave, by Klingsohr, a Master Minnesinger, who also informed the company that the child's name was to be Elizabeth and that she would be given in marriage to Hermann's son. Certain it is that within a few months Princess Elizabeth was promised to the Landgrave's eldest son.

Old Dietrich described Andreas as virtuous, pious and blameless in his rule, but the cold light of history reveals another side to his character. He climbed to the throne by steps of treachery, trying to supplant first a brother, then a nephew. His lavish gifts to the Church and his delights

in the pageantry of state covered a multitude of sins in the eyes of his contemporaries. His wife Gertrude traced her descent direct from Charlemagne and was a beautiful woman of many gifts and great strength of character. But her favouritism to her own people estranged her from the Magyars, who conspired against her and killed her while she was on a holiday.

To Andreas, Elizabeth was "the light of his eyes and joy of his heart," and indeed she was loved by all for her simple frank friendliness and gay, winsome nature. In the palace gardens and the dim galleries of the castle she played with her companions, and the glorious Byzantine chapel was a place of mystery and awe to her. Legend tells that one day a wonderful, unknown child was seen playing with her, and her attendants were convinced from the glorious light surrounding him that it was the Christ Child.

In the summer of 1211 an imposing embassy of great lords and noble ladies came from Wartburg to Presburg to fetch the four year old Elizabeth to her future husband's home. Clothed in silk embroidered with silver and gold the little one was handed over to the care of the ladies of Thuringia. The dowry and gifts sent with her were of unheard of magnificence. The leader of the embassy was Hermann's cupbearer, Walter von Varile. To him, with trembling lips poor Andreas committed his precious daughter. "Promise me on the faith of a Christian knight that you will ever protect and be a true friend to my little child," he said. "On the faith of a Christian knight I give you my promise," was the grave but kind reply.

On the day after Elizabeth's arrival at Wartburg the ceremony of betrothal was solemnized in the chapel of the castle. Duke Lewis, the Landgrave's son, was a blushing, yellow-haired lad of eleven. Jutta, one of Elizabeth's playmates, has preserved for us many of her sayings and doings in those happy days of childhood. The chapel was the place she loved best. Long before she could read they would find her lying before the altar with her hands clasped as if in prayer and the psalm book open before her. She would contrive that their games should lead them to the chapel. She would give the other children presents if they would promise to say an "Our Father" or a "Hail Mary." As she grew older her thoughts turned more and more towards God. She loved dancing but she would suddenly stop and say laughing: "One turn is enough for of pleasure: the rest I will not dance for our Lord's sake." For love of God she would give up some gay little piece of adornment or would lengthen out the time of going to bed by repeating all the prayers she could.

Elizabeth was as dear to her father-in-law as was Ahalyabai to

Malhar Rao Holkar, but when she was nine years old the Landgrave was killed in a struggle with the forces of the militant Archbishop of Mainz who had put his land under an interdict. The Landgravine was annoyed at the growing piety of Elizabeth, and after the Landgrave's death she made no secret of her dislike. So not only did the little girl lose her kind confidant, but she was thenceforth subjected to every sort of petty annoyance.

When at harvest time the princely family, crowned and splendidly arrayed, went to the church to give thanks, Elizabeth catching sight of the image of the Crucified Christ crowned with thorns, knelt weeping before the crucifix, casting her crown to the ground. When roughly rebuked by her mother-in-law for this exhibition of emotion she replied gently: "Oh, Madam, do not be angry with me: I could not kneel crowned with gems and gold before my Redeemer and my King crowned with thorns." The court soon followed the example of the Landgravine, and Elizabeth was the butt of all their scorn and insolence. Walter von Varila and little Jutta alone remained her friends. Lewis was as devoted to her as ever, but he was frequently away from home and Elizabeth never told him what she had to suffer.

At this juncture Andreas of Hungary went on a crusade. He might never return or he might find himself a crownless wanderer, for his reign had been one long struggle with his nobles. The Thuringian court party began to suggest that the Landgravine might repudiate the alliance of her son with Elizabeth; nothing very binding had been done and it would be well to seek a bride with a yet more magnificent dowry. The Landgravine said nothing, but privately thought that a sufficiently severe course of petty persecution would probably drive Elizabeth into a convent, which would be a more seemly way of attaining their purpose. Walter von Varila determined to find out what was Lewis's mind on the subject. "By God's truth, Count Walter," replied the Landgrave, pointing to the rocky heights that overlooked Wartburg, "if that mountain were turned from root to summit all pure gold, I would more readily reject that as valueless than I would forego my marriage with Elizabeth. I love her and nothing shall stand with me before our marriage." And he gave Walter a crystal mirror with an image of the Crucified Lord to give to Elizabeth as pledge.

The gay and gracious young Landgrave, aware now of the intrigues of his court, suddenly made them aware of that element of iron in him which he had inherited from his stern forbears; the insults abruptly stopped, and Elizabeth basked in the sun of the love of her betrothed.

Some time in 1221 a gay company assembled at the Wartburg, Thuringian lords and ladies and Magyar envoys loaded with bridal gifts.

Black-haired Elizabeth with her winsome dark eyes was married at the age of 14 to the ruddy-cheeked Landgrave of 21.

The next six years of her life were a dream of bliss. Never were lovers more united and, ever drawing them into closer and more spiritual communion, was the thorn-crowned Lord they both adored. It is true that Elizabeth outdid her husband in devotion. She would pray while he slept. Next her delicate white skin she wore rough sackcloth. She would walk barefoot in procession and submit to discipline on Fridays and in Lent, and in memory of her Lord she washed the feet of twelve poor leprous beggars on Monday and Thursday. But this she did ever with a joyous heart of love. "Do not pray so grimly," she once said to a long-faced saint: "you will frighten God."

All sorts of beautiful legends gather round her name, for the memory of her was fragrant in Thuringia. The fervid mystical experiences that came to her as she knelt before the figure of the Crucified never passed in mere empty emotion. She entered lovingly into the life of the people whose humble houses clustered round the castle. She nursed the sick, she bound up loathsome wounds, she saw that the aged had food and fire, she held the newborn babies in her arms and often carried them to the font herself. More especially were the loathsome lepers the object of her tender pity and care. The scourge of leprosy spread rapidly in the west during the crusades, and the miserable sufferers were shunned and loathed by society. Elizabeth remembered that her Lord had taken a meal in the house of a leper and she thought no service too menial to perform for them. The Duchess Sophia was furious and old Dietrich tells us that one day when her son was alighting from his horse she took him straight to his room: "Come with me, dear son," she said bitterly, "and you shall see the wonders which your Elizabeth works and I cannot prevent. Outcasts are laid in your bed and that troubles me lest you should be smitten with infection. Look for yourself." Lewis drew back the curtain, and, says the old chronicler, the eyes of mother and son were divinely opened and they beheld the form of Jesus of Nazareth fading away in mysterious light. So deeply was the Landgrave moved that he gave Elizabeth permission to build a lazaretto half-way up the mountain to receive those poor sufferers who could not climb to the castle. This refuge she would visit twice or thrice a day.

When Elizabeth was sixteen her eldest son Hermann was born. "As a joyful thank-offering to God," we are told, "Lewis removed the old timber bridge over the Werra and replaced it by one of stone" and Elizabeth built a little chapel of the Cross. In the succeeding years two daughters were born. On each occasion there were feasts and rejoicings, but when these were over Elizabeth would steal out barefoot and clad

in coarse cloth to offer the baby to God before the altar of the little church down the steep. The experiences of motherhood gave her a new understanding of burdens she might lighten and a tender wisdom in the care of little children. She founded a hospital for sick children and orphans and it was her delight to tend and cherish them, so that her visits were greeted with joyous cries of "Mother, Mother," from the little ones.

Kingsley speaks rather slightingly of Lewis as "possessed of all virtues but those of action : in knowledge, in moral courage, in spiritual attainment, infinitely inferior to his wife and depending on her to be taught to pray : giving her higher faculties nothing to rest on in himself and leaving the noblest offices of a husband to be supplied by a spiritual director." But Canton represents him as growing in firmness of character, the champion of the traders and common folk against the tyranny of the nobles.

It was a sad day for Elizabeth when the devout and learned Master Conrad of Marburg became her religious director. Of him Kingsley says: "I have fancied that I discover in the various notices of his life a noble nature warped and blinded by its unnatural exclusions from those family ties through which we first discern on describe God and our relations to Him, and forced to concentrate his whole faculties in the service, not so much of a God of Truth as of a Catholic system." Canton describes him as "a man who lived in dread of God rather than through love of Him : a formalist in whom the fires of a fanatic smouldered." He made it his aim to reduce Elizabeth to that condition of implicit obedience to ecclesiastical authority which was his ideal. He would only become her spiritual director on pledge of entire obedience in all things that did not touch her husband's authority. Elizabeth's humble and devout heart was willing to promise anything if she might learn more of God. "So far," says Canton, "with so little in the spirit of the Divine Exemplar during His earthly sojourn, the rigid formalist imposed his claims on a simple and innocent soul whose one dream was conformity to the will of God and complete union with Him."

In the autumn of 1225 the Landgrave was summoned across the Alps to help the Emperor Frederick II to quell a revolt in Italy. The separation was a sore trial to Elizabeth but with perfect confidence Lewis committed Thuringia to her care. It was a terrible winter. Famine and cold and disease claimed countless victims. Elizabeth emptied the treasury to supply the needs of the people. The granaries were opened and bread baked and distributed individually. Supplies were carried down the hill to the infirm and two more hospitals were erected. She insisted on using the revenues of all her dominions for the relief of distress, and she sold most of her jewels and the massive silver cradle in

which she was brought to Thuringia. She personally superintended as much of the relief as was possible, to see that there was no waste or oppression. She had to face the protests and remonstrances of most of her officials because of the lavishness of her gifts.

The Landgrave returned in the summer and Elizabeth's happiness knew no bounds. When he enquired after the fate of the poor she replied: "I gave God what was His and He has kept for us what was yours and mine." To the anxious treasurers and stewards he replied: "Let her do good and give to God whatever she will, so she leaves me Wartburg and Neuenburg." It was during these glad days together that Elizabeth discovered a red cloth cross which he had kept secreted in his purse. Her face grew white as she realized its purport. Lewis had vowed to go in the next crusade. "Dear sister," he said (they always called one another brother and sister as they had done in childhood's days), "what I have done is for the love of our Lord Jesus Christ and this is no more than such service as I could not have refused to the Kaiser, mine earthly liege-lord." So Elizabeth gave her will to God's will and said: "I would not keep you against God's good liking. You and me I have offered up to Him. In the holy name you shall ride forth." The parting came next spring, and it was bitter indeed. She accompanied Lewis some days' journey on his way and then had to tear herself from him. The brave knight never reached the Holy Land. He died of fever when about to sail from Italy. Three months after his departure a little girl was born and Elizabeth called her Gertrude in memory of her mother. Shortly after this came the news of the Landgrave's death. Her mother-in-law broke the news to her. "The world is dead to me," moaned Elizabeth, "and all that was pleasant in the world."

The brothers to whom Lewis had entrusted his wife and little ones proved false to their trust, and in the dusk of a mid-winter's day Elizabeth and her children were driven from the castle. With her faithful ladies Isentruude and Jutta she wandered from place to place receiving little sympathy or help from the people to whom she had been as a ministering angel. But the terror of the usurper's wrath was upon them. At last the outcasts found refuge with an aunt of Elizabeth in a convent. Her uncle, too, the Prince Bishop of Bamberg, was kindness itself, and suggested a marriage with Kaiser Frederick. But Elizabeth had vowed herself to perpetual widowhood. Then came the news that faithful men were bearing home her husband's earthly remains to their last resting place. After the funeral ceremonies Rudolf, son of Walter von Varila, one of the crusading pilgrims, roundly rated Heinrich the usurper and it was agreed that Elizabeth should have the revenues of her dowry and that her son should succeed his father. She returned to Wartburg, but

her presence was always a reproach to the worldliness of her family and very few of the promises they made were kept. The old Pope Gregory at length took her under his care and once more appointed Master Conrad as her spiritual director. Elizabeth chose the way of poverty rather than the seclusion of the convent. How grievous it is that at such a crisis in her life she had as an adviser one who understood so little of the heart of the Master who came that men might have life and have it more abundantly. Conrad maimed and impoverished her life for he led her to renounce her children, her kinsfolk, her parents. So the little ones who so needed her tender care were placed in the charge of others, the three eldest at Kreuzberg to be brought up according to their station, Gertrude the thanksgiving babe with some nuns. This latter was the decision made by Lewis and Elizabeth before he set off on the Crusade.

Elizabeth now spent her whole time among the poor and frequently visited her hospitals till Conrad, afraid of her contracting disease, forbade her to do so. He limited her almsgiving, and, says Lady Isentruude, "in manifold ways tried her constancy and strove to break her will." He took from her the faithful friends Isentrade and Jutta and replaced them by a common serving woman and one of the Grey Sisters, who constantly spied upon her and reported to Master Conrad all infringements of his rules for which he punished her with stripes and slaps. She yielded him complete and uncomplaining obedience; for to her his was as the voice of God. "If I fear mortal man so much, how much more is the Lord Omnipotent to be feared who is Lord and Judge of all," she said. How grievous this, from that Elizabeth whose love had been the perfect love that casts out fear. She lived on the poorest possible food and supported herself by spinning wool. Her coarse woollen dress and cloak was patched and worn. Her terrible privations broke down her health, and in the bitter days of late October she was obliged to take to her bed. She never murmured and her face was radiant with joy. Once as she lay with her face to the wall, the serving maid heard most sweet singing. "Did you hear anything," said Elizabeth. "Truly I did," was the reply. "I will tell you," answered Elizabeth. "Between me and the wall some little bird sang to me most blithely: and I was so moved by its sweetness that I too had to sing." The next three days she spent mostly in prayer and again those watching her heard her singing. Then on the fourth night she dropped her head as if in slumber and her spirit returned to God.

After her canonization by the Pope in the summer of 1235, those who had shown her such scant courtesy in her lifetime vied with one another in doing her honour. Her brother-in-law Conrad erected a

glorious church in her memory and on May Day of the next year her remains were taken to Marburg. The ceremony was a magnificent one. Kaiser Frederick was there crowned but barefooted and clad in coarse grey wool and with him his bride Isabella, daughter of John of England. Frederick, placing on the saint's head a golden crown, said: "Since I could not crown her empress while she lived now I will crown her an immortal queen in the Kingdom of God." Her children, her relatives, Thuringian nobles and their ladies, the townsfolk who had been so ungracious, all thronged to do honour to her dust. Jewels and gold and gems were poured upon the tomb of her who had wedded poverty. One echoes the words of Colet at the shrine of Thomas a Becket: "A saint so lavish of gifts to the poor in his lifetime would certainly prefer that they should possess the wealth heaped round him at his death."

And now what conclusions are we to draw from our study of these famous women? First of all repeat what was said at the beginning. The womanly ideals of India are not so far removed from those of the West that we cannot meet on common ground and learn to understand and appreciate one another. We do not want to miss the distinctive contribution that East and West have to make, but we are conscious that on both sides are great varieties of gifts. We talk of the mystic, contemplative, religious East and straightway we are reminded of the raptures and visions of Theresa, Jeanne d'Arc and Elizabeth. We talk of the practical, businesslike, domineering West, and there rise to our minds' eye the figures of Ahalyabai and Lakshmibai, with their knowledge of affairs, their business acumen, their power over men. I have known Indian women who, with comparatively little of what the modern world would recognise as education, have shown an organizing power which many a western woman might envy; and I have known western women as deeply religious as the most spiritual of India's daughters.

But the two points I want specially to emphasize are:—

1. That these heroines whose stories have been told, even when they were forced to do the work of men, remained entirely womanly. The mannish woman is not the ideal in West or East. The necessity of entering the world's hurly-burly does not make womanliness impossible. From all that we read of the Rani of Jhansi, in spite of her daggers and her war horses, she never became bold and unwomanly. Jeanne d'Arc was ever the pure unspotted Maid. She had to face all the coarseness and the foulness of army life. She was like the light which purifies and never receives a stain. The foul crowd of camp followers vanished, coarse oaths were never heard, but instead the chanting of hymns and of prayers, when she was at the head of an army. Hypatia

in spite of her learned lectures was never a blue-stocking. She was a womanly woman always.

2. The second point is that all these women were inspired by lofty religious purpose, and women's work will fail of its highest end if divorced from religion. Jeanne was victorious as long as she knew she was fulfilling the will of God. Religious faith gave strength to delicate women like Mirabai, Theresa and Elizabeth, to suffer with joy and to shrink from no hardship of service. It is the religious purpose which saves the woman in public life from contamination. Ahalyabai's state flourished under her care because she did all for God and not for self-glorification. Where personal ambition is the motive, no lasting service for good will be rendered by any man or woman. In these days when women are more and more coming into the world's arena, it is of the utmost importance that the education of girls should be in the deepest and truest sense religious, and it is for this reason that we Christian women feel it impossible for us to divorce the education we give from religion.

M. L. BUTLER.

ETHNOGRAPHY, WITH SPECIAL REFERENCE TO INDIA (II).

THIS work of pre-historic explanation has led us to periods of time at which the existence of man in one form or another has been made probable. In his physical characteristics, he was, it has been seen, more animal-like than human. The discovery in Java by Dr. Eugene Dubois, in 1891, of the now famous *Pithecanthropus Erectus* in a bed attributed to the Pleistocene period below the dry season level of the Bengawan River at Trinil made it possible to directly connect Man with Ape. The discovery was announced at the time, even in scientific journals, as "The 'missing link' found at last." Dubois published his account in Java in 1894 and since that date at least three distinct theories have been propounded about it. Some claim a Simian origin for the remains; others believe them to be human; still others ascribe them to an intermediate form. Duckworth, who belongs to the third group of these theorists, sums up his view thus:—"I believe that in *Pithecanthropus Erectus* we possess the nearest likeness yet found of the human ancestor at a stage immediately antecedent to the definitely human phase, and yet at the same time in advance of the Simian stage." Professor Sollas assigns the *Pithecanthropus Erectus* to "some part of the Pleistocene Epoch" in preference to the Pliocene, to which it was originally referred. He adds:—"We have "no evidence either for or against the existence of man in times previous to the Great Ice Age."

Speaking of *Pithecanthropus Erectus*, I would mention that only in July last, news has come from Amsterdam that Dr. Eugene Dubois, its discoverer, has for the first time since its discovery accorded to the American School of Prehistoric Studies in Europe, under the direction of Dr. Ales Hrdlicka of the United States Smithsonian Institution, the courtesy of the first opportunity to make a thorough examination of the original fossils of this half million year old being. The American scientists, after an inspection of the original bones at Dubois' home at Haarlam, seem convinced that this ape-man was more nearly human than formerly supposed. "The examination was in many respects a revelation," declared Dr. Hrdlicka. "When Dr. Dubois publishes his detailed study which he tells me he expects to do before the end of the year, *Pithecanthropus Erectus* will assume an even more important place in science than it has held up to now. None of the published illustrations or the casts now in various

institutions are accurate. Especially is this true of the teeth and thigh bone. The new brain cast is very close to human. The femur is without question human." The remains, Dr. Hrdlicka explains, consist of the now for the first time thoroughly cleansed skull-cap, the femur, three teeth, two molars and one pre-molar. Besides these, there is a piece of a strange primitive lower jaw, a later, but nevertheless still primitive, type of man found in lime deposits in a different part of the island (of Java) from that of the other bones."

In this connection we may refer (quoting a published account) to the almost human jungle monkeys, who live on a system, recently described to us by an American naturalist.

"Mr. Alfred A. Vernay, head of the Vernay-Faunthorpe Indian Expedition, organised on behalf of the American Museum of Natural History, has just returned to New York with a dead Malabar langur, a jungle monkey. Mr. Vernay says these monkeys are so human in their ways that he could not bring himself to shoot more.

"We found no animals that behaved so much like men," states Mr. Vernay. "The Malabar langurs would sit in the trees and look at us, just as curiously and interestedly as we surveyed them. I watched their antics for hours and their life was just as systematised and regulated as that of the human natives.

"When they decided to feed, sentinels were posted at all points of the compass to stand guard against their enemies, tigers and leopards, while the others ate.

"Fresh sentinels were sent out to relieve those on guard as soon as the meal was finished. They behaved just like soldiers, and were most intelligent about it, too. I aimed at them several times but could never pull the trigger."

The discovery of the human remains we have spoken of above have profoundly affected anthropometric research. The intense interest created in them has, as Haddon remarks, stimulated anatomists to a more careful analysis and comparison with other human skulls and with those of anthropoids. New ways of looking at the problems have suggested themselves and these have led to the employment of more elaborate methods of measurement or description. "Almost every specimen of fossil man has led to some improvement in technical research; and the subject is not yet exhausted, as the character of the inner walls of the crania have not yet yielded all their secrets, more particularly in regard to the brains which they once protected."

There has been much discussion on the subjects of the classification and distribution of man. His place has been fixed in nature by finding a place for him in the classification of animals. Linnæus did so and put

him at the top of the tree. The main question, however, related to his exact relationship to the higher apes. "Linnæus included man and apes in the Primates, one of the seven orders of Mammalia. Cuvier divided the mammifers into nine groups, man being included in the Bimanes, and apes and monkeys in Quadrupedæ. Huxley finally fixed man's place in his well-known work "Evidence as to Man's Place in Nature," in which he proved that man was more nearly allied to the higher apes than the higher apes are to the lower monkeys. There is now general agreement among zoologists and anthropologists that man is included in one of several families that constitute the sub-order Anthropoidea of the order of Primates. It is also now generally admitted that *Pithecanthropus* may be regarded as a member of a separate family of the Anthropoids, the *Pithecanthropidæ*, between the *Semidæ* and the *Hominidæ*. The re-examination of the previously known skulls of the palæolithic age, and the discovery of fresh specimens in recent years, have re-opened the question whether the genus *Homo* contains more than the one species, *H. Sapiens*. Duckworth has given a careful summary of the morphological characters of the Neanderthal, Spy and Krupina remains, and states as his opinion that "the individuals thus characterised are associated in a group specifically distinct from the modern *Hominidæ*, to which the name *Homo Præmigenius* or *Homo Neanderthalensis* has been applied."

Where did man originate and how did he develop into the different races and sub-races we find now? And how did he spread himself throughout the world and from what time? These are all complex questions of Ethnology and have been debated upon by different writers from a long time past. These authorities describe and classify the various races and peoples of mankind on the basis of certain criteria—colour of skin, stature, colour of hair, skull form, form of the nose, etc.—and indicate their geographical distribution and in some instances notify some of the shifting and migrations that have taken place. Maps of different kinds have been prepared to illustrate these migrations as also an atlas (by Dr. G. Gerland) to summarise the great store of information collected. But our knowledge of these movements of mankind are still scanty and require to be supplemented not only from historical and traditional sources but also from the archaeological, geographical and geological points of view. It is only then that any approximation to truth in this matter can be arrived at.

A brief review of the classifications proposed may now be made. The French traveller, F. Bernier (1625-88) was the first to classify mankind. He distinguished "four or five species or races"—(1) The inhabitants of Europe, North Africa (including the Egyptians) and a great part of Asia (including the Indians). He notes that the Egyptians

and Indians are black or copper-coloured, but considered the complexion to be due to climate. (2) The African with thick lips, flat noses, and black skins, due not to climate but nature, with scanty beard and woolly hair. (3) The Asiatics not included in the first group, "white, with broad shoulders, a flat face, a small squab nose, little pig's-eyes, long and deep set, and three hairs of beard." (4) The Lapps, "little stunted creatures, with thick legs, large shoulders, short neck, and a face elongated immensely ; very ugly and partaking much of the bear ; they are wretched animals." He hesitates whether to put the Americans or the inhabitants of South Africa, who are unlike the Negroes, into a fifth class. Linnæus divided *Homo* into four varieties, which he distinguished by the colour of their skin, located severally one in each of the then known continents—*Europæus Albus*, *Americanus Rubescens*, *Asiaticus Fuscus*, and *Africanus Niger*. Blumenbuck based his classification not only on skin colour but also on skull form. To the four of Linnæus, he added a fifth group, dividing the one species into five varieties—the Caucasian, the Mongolian, the Ethiopian, the American and the Malayan. The last group included the then little known Australian, Papuan, and pure Malay tribes. Prune Bey, who claimed that the quality of the hair constituted one of the best means of race-identification, prepared the way for the first scientific classification of races based on a definite physical characteristic—the quality of the hair. Bury de St. Vincent had ere this, however, classified the races of mankind on the basis of the character of the hair, thus:—*Leiotrichi*, or straight haired, and *Ulotrichi* or woolly-haired. This was subsequently adopted by Huxley and is the basis of Dr. Haddon's latest classification proposed in his *Races of Man*. Isidore Geoffroy Saint-Hilaire distributed his eleven principal races primarily on this basis of the character of the hair, but sub-divided them according to the flatness or projection of the nose, skin-colour, the shape of the skull and the character of the face. Frederich Müller and Professor Ernst Hæckel based their classification on a similar hair test; so also Topinard, whose three main classes are—straight, wavy or curly, and woolly, sub-divided first by head-form, then by skin colour. With the growth of knowledge, the sub-divisions have increased, so much so that it has been felt that there is little to be gained by a water-tight compartment system of three or four main varieties. Deniker, in fact, suggests that a pure race is practically non-existent and sets up a classification which is mainly a grouping by combining different characters (colour of the skin, nature of the hair, stature, form of the head, of the nose, etc.). This results in the formation of 17 Ethnic groups, containing 29 races, and these he arranges in a two-dimensional grouping, to show their affinities. This pigeon-hole system of classification has, however, been

discredited, and attention has been directed to Prichard's well-known remarks:—

"The different races of men are not distinguished from each other by strongly-marked, uniform, and permanent distinctions, as are the several species belonging to any given tribe of animals. All the diversities which exist are variable, and pass into each other by insensible gradations; and there is, moreover, scarcely an instance in which the actual transition cannot be proved to have taken place."

The latest tendency has been to revert to the old three-fold or four-fold grouping of the human varieties but to explain the divergences between the subdivisions making them up on the grounds of differences in environment to which they are subjected. Thus Professor Keane, though he goes back to the four-fold grouping proposed by Linnæus and Blumenbuck, uses these divisions to represent, not actual varieties or races, but "ideal types," differentiated by somatic characters, and also by language, religion and temperament. "Although man had but one origin," he says, "one Pliocene precursor (*Pithecanthropus*), men had separate places of origin, several pleistocene precursors." In his family tree he assumes four such precursors, and from each "ideal type" he traces the development of the present varieties arranged in the scheme of the family tree. His four primary ethical groups are—*Homo Aethiopicus*, *Mongolicus*, *Americanus* and *Caucasicus*. These primary groups according to him are not derived one from the other, but independently, as stated before, from a common precursor. Their differences, according to him, are determined by their different environments. After a careful and close examination of evidence available, he suggests as the probable centre of evolution and dispersion the Indo-African and Austral regions, which is the true home of the Lemur and of the Anthropoids. He points out that the characters of the pliocene precursor and of the pleistocene sub-groups are persistent in the Afro-Austral regions. He then traces the pliocene and pleistocene migrations from the primeval home and the order of development of the primary groups in their several centres of evolution. He thus reconciles, to a certain extent, the polygenist and monogenist views. His views have not so far been seriously changed. On the other hand, they receive some support from the considered opinion of Messrs. Flower and Lydekker, who, in discussing the primeval dispersion, remark that the first *Hominidæ* were probably all alike. But as they spread over the globe, they became modified by climate, food, the struggle for existence with themselves and with other animals, by selection acting on slight variations, and so forth, the differences showing themselves externally in the colour of the skin and texture of the hair, form of head and face, proportions of limbs and stature. They also think that geographical position must have been a main factor in

determining the formation and permanence of races. Groups isolated in islands or secluded uplands would in due course develop new types in the physical and moral orders. But on large open spaces, continental plains or plateaux, unobstructed by great ranges or other natural barriers, free intercourse would make for uniformity. Smaller or feebler groups would be absorbed or wiped out, conquerors and conquered disappearing or merging together. "Thus for untold ages the history of man has presented a shifting kaleidoscopic scene," a ceaseless "destruction and reconstruction," a constant tendency towards differentiation and towards fresh combinations in a common uniformity, the two tendencies acting against and modifying each other in divers ways. At the same time the history of the evolution of the present divisions has been mainly obliterated, and the absence of palaeontological evidence, that is, of physical facts drawn from the remote ages when the different races were being slowly formed, makes their reconstruction largely conjectural. In other words, the geological record is necessarily imperfect and many chapters being absent, the gaps between transitional forms cannot all be bridged over. The starting point itself in the inquiry is unknown, and may never be discovered as it may be buried in the bed of the Indian Ocean or of some other marine or lacustrine basin,

In regard to races inhabiting India and Ceylon and their filtration to one or other of the four primary groups mentioned above there is considerable divergence of opinion. Keane, for instance, sets down the "Toda" and "Veddah" to the "generalized Caucasian"; the Veddah is classed by Thurston and Haddon as a survival of a Pre-Dravidian race. Risely, on the other hand, brings in the Scythians to answer for the existence of broad heads in the zone extending from the great grazing country of the western Punjab through the Deccan to the Coorgs. This is not accepted by Haddon, who would explain the present brachycephals in this region by an unrecorded migration of some members of the Alpine race from the highlands of south-west Asia in pre-historic times. These are only a few instances to indicate the complexities of Indian Ethnology. The difficulties involved in it are further complicated by the linguistic divisions of the country and the discussion to which they gave rise in earlier times. Broadly speaking, there are in India the Pre-Dravidians, probably to be classed under the head of Keane's *Homo Aethiopicus*; the Dravidians under *Homo Caucasicus*, *Melanochroi*; the Tibeto-Burmans, the Lusheis, the Khasis, the Nagas and the Chingpos, under the *Homo Mongolicus*; and the Aryans, represented by the non-Dravidian upper classes, under the *Homo Caucasicus*, *Xanthochroi*. Even this classification can only be taken as a tentative one, for our knowledge of Dravidians and Pre-Dravidians is extremely meagre and does not yet warrant any generalizations on a large scale. It is for this

purpose that further investigation is necessary in this country. The study has received an impetus during the past 30 years. The matter collected, though fair, is by no means exhaustive. The rate of progress since the Ethnographic Survey started under the auspices of the Government of India about twenty years ago has been fairly well maintained. Still a great deal is necessary if we are to attain any substantial results.

One way in which investigation may be furthered is to concentrate attention on smaller areas and smaller groups for study. This has been the modern tendency in the study of primitive races undertaken by anthropologists sent out from England. We would be doing well in taking a leaf out of their books.

In Madras, Cochin, Hyderabad and Mysore, much has been done to study individual castes and tribes. The information gathered may form the basis for further investigation. In most cases, the information gleaned is not complete nor entirely first hand. In our own State, the original tentative monographs have not been issued yet in a consolidated form. This is a desideratum that should be soon supplied. Ethnographic study will be rendered more profitable if trained workers take up the work and settle down to the elucidation of a single caste or tribe, dealing with it on approved lines in a fairly comprehensive manner. What is required is, in the words of Tylor, the greatest of all anthropologists, "method" in investigating the development of institutions—such as laws of marriage, descent, etc. Tylor insists on the necessity for sifting and testing all the evidence, relying to a great extent on "the test of recurrence" or of undesigned coincidence in testimony. He says: "The more odd the statement, the less likely that several people in several places should have made it wrongly. This being so, it seems reasonable to judge that the statements are in the main truly given and that their close and regular coincidence is due to the cropping up of similar facts in various districts of culture. Now the most important facts of Ethnography are vouched for in this way."

Another point which would be cleared up by method in Ethnographic research would be this: What is the extent of Mother right in India as opposed to Father right? Leaving out sporadic attempts at gleaned something reliable on this head, no systematic attempt, on the lines of Morgan's suggestions, has been attempted in India. Morgan, one of the greatest anthropologists of the nineteenth century, in his great work on *Systems of Consanguinity*, laid a solid foundation for the study of the family and kinship systems. He formulated a scheme for the evolution of the family based on a study of the classificatory system of relationships, of which he was the discoverer. In this system, most of the kin in the same generation are grouped under one general term: e.g., all the males of the grandfather's generation are called by one term, and another

term includes father, father's brothers, father's male cousins, mother's sisters' husbands, mother's female cousins' husbands, and so on. According to this scheme, human society has advanced through gradual evolution, from a state of complete promiscuity to one characterised by monogamy. Investigations in South India so far show the soundness of the view, but further research is undoubtedly necessary in this line. The late Dr. W. H. R. Rivers introduced a new method of collecting similar data by means of recording exhaustive genealogies from a limited area. In this way not only can kinship terms be collected with accuracy but a large number of other sociological data are obtained with a readiness and precision not hitherto possible. Dr. Rivers' *Todas* shows how he worked this development of Morgan's plan in regard to that tribe in India. Dr. Haddon claims for Dr. Rivers' method great value. "Indeed," he writes, "it is no exaggeration to say that this method is producing a revolution in the method of sociological field work." We should see if we cannot adopt this method in future ethnographic research work in this country.

Other branches of ethnographic study in which method would be invaluable are marriage, religion, myth, and folklore. There is an advantage to be gained by studying these from the point of view of Ethnography. It is likely to furnish us with the key to the truly primitive mind. Vedic religion, for instance, is not promotive any more than the religion of the savage, out of which civilized religions evolved. As Moore acutely remarks, "The Australian Black or the Andaman Islander is separated by as many generations from the beginning of religion as his most advanced contemporaries; and in these tens or hundreds of thousands of years there has been constant change, growth, and decay—and decay is not a simple return to the primal state. We can learn a great deal from the lowest existing religions, but they cannot tell us what the beginning of religion was, any more than the history of language can tell us what was the first human speech."

This brings us to linguistics. The study of languages has to be diverted into one that is useful in this country. If that were done—at least in Peninsular India—it would help us to see the exact relationship of people to the languages they speak. Language implies contact; not always racial affinity. There are tribes, at least in South India, who now speak Tamil, Malayalam, and other languages, probably only because they have, in the struggle with others, lost their own. Thus the Imlas, the Chenchus and the Paniyans speak the dominant languages of the areas they inhabit—but often cannot pronounce the words and make up their deficiency by signs or duckings. Remarking on this—observed among the Negroes of America in their struggle to adapt the English tongue for their purpose—Dr. Keane suggests that it shows the remote racial origins of

these people and indicates the physical deficiency in their organs of speech. According to him, "speech is a function which perfects itself hand in hand with the growth of the organ. Hence the faculty starts from a germ, and its history is one of continuous upward evolution from slowly accumulating crude utterances." It follows as a necessary corollary from this that the organic or present condition of speech was preceded by an "inorganic phase." He approvingly quotes in this connection Dr. Keith's remarks on his anatomical study of the *Pithecanthropus Erectus*. From a study of the facial parts specially modified for speech of this human fossil, Dr. Keith infers that, the arrangement of the mental lines being the same in human fossil jaws as in modern ones, "the muscles which arose from them were adapted to similar purposes, and were therefore subservient for speech. The arrangement of the mental lines in anthropoids is quite different. They turn up in front of the interior canine teeth, and enclose between them a quadrilateral rough surface corresponding to the triangular mental space of man. In anthropoids this space retreats rapidly downwards and backwards, a feature in which fossil man resembles apes much more than modern man, and shows also, I think, that fossil man was less highly adapted for speech."

The importance of Ethnography—which will always lead up to Ethnology proper in due course and Anthropology in general later—ought to be self-evident to any one interested in the perennial problems of racial contact. What is required for its study is patience and an ardent desire to know. To know not only other races but also your own; not only others but also *self*. Some knowledge of pre-historic Archaeology, Anatomy, World-Geography are prerequisites. Granted this, and abundant energy, enthusiasm and love for his subject, I will make bold to say of any recruit, "once an ethnographist, always an ethnographist."

I will conclude by offering a few suggestions for lines of work in the near future in this field of work:—

- (1) We want more light on caste and its organization and origin. Is it what it is because of the area of country and number of people—350 millions—it has to deal with? The larger the extent of country and the greater the population to deal with, the more comprehensive the organization required. That is a sociological truism.
- (2) Family organization.
- (3) Animistic ritualism.
- (4) Technology.
- (5) Place names and personal names.
- (6) Linguistics—particularly from the somatologist's point of view.

“DYING LIGHTS AND DAWNING” *

UNDER this quaint but suggestive title the author has produced a book full of deep thought, couched in simple language. It comprises the Matha Upton Lectures given in Manchester College, Oxford in 1923. The author is already well-known as one who has read much and written much on oriental topics, especially Buddhism, and it would be strange indeed, if the book under review written on the profoundest of all subjects, the destiny of man, did not contain distinct traces of oriental thought. But to say this is of only an academic interest, for truth knows not either the east or the west, it is universal.

The author from the very beginning repudiates the idea of the supernatural as something which is entirely outside or above nature. “What is inward and spiritual,” says he, “is for me to the full as natural as what is outward and visible.” So what is popularly spoken of as supernatural he prefers to call only supernormal. Nature knows no gaps, and there is continuous development so that the highest is both immanent and transcendent. The idea of God carries with it four cardinal attributes: it is a unifying principle, the Eternal Essence, Eternal Source, and the Eternal Goal. “In this Eternal Beyond—the Infinity of man’s evolutionary series—we have the unrevealed, the hidden, the transcendent God.” Chapters II to V are an acute study of the Roman Catholic theology. The author, writing frankly as a Christian and as a Protestant, makes out his case that Catholicism with its rigour and fundamental assumptions has succeeded in developing a self-consistent body of beliefs, but that it is fundamentally inconsistent with the spirit of Christ’s personality and teaching with its abhorrence of the scribes and the pharisees.

The main interest of the book, however, lies in the last two chapters dealing with “the Gospel of Spiritual Evolution” and “the Prophet of Spiritual Evolution.” The creed of the author may be stated briefly in his own words. “The way to God is the way of self-transcendence through self-development (It) is two fold. There is the inward way of self-mastery, self-culture, self-transfiguration, and the outward way of going out of self into the lives of others. Neither way is sufficient of itself.” “What is love but an overflow of life from self into what seems to be beyond self, an overflow which carries self beyond its

* *Dying Lights and Dawning*. By Edmond Holmes. J. M. Dent & Sons. 6s net

wonted limits, and so expands and transfigures it in and through the very raptures of its self-loss?"

According to the author "the Gospel of Spiritual Evolution has had two great exponents—Buddha and Christ." Of the two he awards the palm of superiority to Christ, a conclusion with which it would be ungracious to quarrel, for by the very law of evolution each man must build for himself on his own social and religious heritage. Moreover it is futile to argue who is greater, for in the kingdom of the Bhaktas of God each has served God in humanity as well as circumstances permitted, and they are all equal in the eyes of the supreme though little, frail man may waste his time and energy in balancing the inward worth of inscrutably great souls. Each of them has contributed to the spiritual evolution of man by putting down the legalism of creeds and evolving the full freedom of love and service. Mr. Holmes admits that in the historical account of Christ we find two irreconcilable conceptions of God, the one derived from the tribal patriotism of the Jews, the other being the original contribution of Christ himself. He fearlessly gives up the former as having been due merely to the accident of his age and society. There can be no doubt that he has drawn out the noblest implications of Christ's personality and presented them in a way which could not but appeal to all who are religious minded, and all these will piously echo the closing words of the author: "And how shall we best serve God? By carrying on in our own selves the work of creation, which is his life-work, so to speak; by evolving our own limitless potentialities of life and by stimulating as best we may the outgrowth of life in others. The spirit of God is essentially and eternally creative spiritual evolution is the way of preparation for service. We can now see that it is the way of service, the way of salvation, the way of eternal life. Let us walk in it with resolute will and unfaltering faith, and follow it whithersoever it may lead us."

A. R. WADIA.

ZARATHUSTRA.*

IN our ignorance we are often apt to imagine that the past is dead and useless. But in fact the past is never dead, it is always alive in the present, and we could see it, if we would but care to. It is in this sense that the *Divine Songs of Zarathustra* must have an interest far beyond the narrow limits of his present day followers. Once the Prophet of Iran could count his followers by millions, though to-day they rarely amount to a lakh, but the essence of his teaching has been absorbed by the great religions of to-day from Judaism to Bahism, and that in itself is a great tribute to the earliest in the long line of the Prophets of God, whose age is as old as the age of the Vedas themselves. The translation is by Mr. D. J. Irani, a well-known solicitor and a Persian scholar of Bombay, and it is the best we have come across both in the quality of the English used and the lucidity of meaning. The worth of the book is heightened by a brief but masterly introduction from the pen of the great seer of modern India, Dr. Rabindranath Tagore. "He was the first man we know who gave a definitely moral character and direction to religion. . . . Zarathustra was the greatest of all the pioneer prophets who showed the path of freedom to men, the freedom of moral choice, the freedom from blind obedience to unmeaning injunctions, freedom from the multiplicity of shrines which draw our worship away from the single-minded chastity of devotion." "He was not like a man who by some chance of friction had lighted a lamp, and knowing that it could not be shared by all, secured it with a miser's care for his own domestic use. But he was the watcher in the night, who stood on the lonely peak facing the east and broke out singing the poems of light to the sleeping world when the sun came out on the brim of the horizon." And what better can we do than repeat again a few of these songs of light, so beautifully rendered by Mr. Irani.

XVI.

"Oh ye, who come to seek knowledge, now shall I proclaim to you
the joyful message of the Wise Creator,
The hymns unto Ahura, and the prayer-offerings of the good mind,
The sublime Truth I see arising from these sacred flames,
And the glorious vision of the Heavenly Lights attainable through
Truth sublime.

* *The Divine Songs of Zarathustra.* By D. J. Irani. Allen and Unwin. 5s. net.

XVII.

Hearken with your ears to these best counsels:
 Gaze at these beams of fire and contemplate with your best judgment;
 Let each man choose his creed with that freedom of choice which
 each must have at great events;
 Oh ye, awake to these my announcements!"

XLIII.

He who abhors the light of the sun,
 He who refuses to behold, with both his eyes, God's good creation,
 He who makes offerings to the wicked,
 He who makes the meadows waterless and the pastures desolate,
 He who lets fly his weapon against the innocent;
 An enemy of my faith, a destroyer of my principles, is he,
 O Mazda!

XLVI.

He who fights evil, either by his thought or word,
 Or with the might of his two hands,
 He who instructs people to their good,
 Makes a worthy offering of faith, in his love of Thee, O Ahura
 Mazda!

These stanzas suffice to illustrate the spirit of Zarathustra's message to mankind: a devotion to righteousness and an unyielding fight against the "Lie-Demon." Nowhere is he so intense as when he asks:

"How shall I deliver the Lie into the hands of Truth?"

Or again

"My Lord, when shall the day dawn for winning the world to
 the cause of Truth?"

In spite of the centuries that have elapsed since Zarathustra poured out his heart in his gathas, the Lie-Demon yet stalks proudly abroad and that but shows the good fight is not yet ended, and so the need of the old message is not dead.

A. R. WADIA.

NEW THEORIES OF MATTER AND THE ATOM.*

UNTIL very nearly the end of the nineteenth century physicists and chemists approached problems relating to the properties of matter from different points of view. The physicist was concerned with inanimate matter in bulk and regarded as his province all phenomena in which it played a part, with the exception of those in which a change of substance occurred. With such chemical changes he had nothing to do, and chemical individuality had no more significance for him than the numerical value of a constant in his formulæ. The chemist, on the other hand, took for his legitimate field of investigation the study of just those properties of matter which were excluded from the purview of physics. His material was still matter in bulk, but in order to elucidate the nature of chemical change he was obliged to take a more microscopic view of that material, and in the end succeeded in erecting a fairly coherent theoretical edifice on the foundation of some ninety fundamental but diverse units—the atoms of the elements. What might be the relation—if there was one—between those units was a matter of pure speculation, a matter on which the resources of the physical and the chemical laboratory could shed no light. This was the position when in the “nineties” of the last century two discoveries of outstanding importance were made: the first, by J. J. Thomson, of the nature of the cathode rays; the second, by Röntgen, of the X-rays. The determination of the mass of an electron made it clear for the first time that not only was an atom divisible, but also that the atoms of different elements could give rise to similar disintegration products. The X-rays, for several years chiefly important on account of their usefulness in the sphere of surgical diagnosis, have become during the last decade a most valuable tool in attacking the problem of atomic structure.

With the recognition of the complexity of atoms, the hitherto distinct objectives of physics and chemistry converged, and it is not too much to say that at the present time a considerable number of eminent physicists are chiefly concerned with a purely chemical problem, while many chemists of the younger generation, realising that their traditional methods

* *The New Theories of Matter and the Atom.* By Alfred Berthoud, translated by Eden and Cedar Paul. London, Allen and Unwin. New York, The Macmillan Company. 10s. 6d. net.

are inadequate to the new conditions, are arming themselves with the more effective weapons of physics and mathematics.

In giving an account of the progress which has been made during the last quarter of a century in the elucidation of atomic structure and the theory of the relation of matter and energy, Professor Berthoud has written a book which has a particular claim on the attention of the majority of physicists and chemists, — of all those physicists who, while engaged on their more usual non-chemical investigations, may yet be supposed to take an interest in the application of their own methods to a chemical problem of fundamental importance ; and of all those chemists who lack the special knowledge of physics and mathematics needed for active participation in such work. After an introductory chapter summarising the origin and development of the atomic theory, the author deals successively with the electromagnetic theory of light, the mass, charge, and size of electrons, the theory of relativity and relation between mass and energy, X-rays and high frequency spectra, radioactivity and isotopism, Rutherford's and Bohr's atoms and the theory of quanta, line spectra and the theories of chemical affinity. The extraordinarily rapid developments which have taken place in these branches of knowledge during the past twenty-five years have their historical counterpart in the equally amazing, if less spectacular, progress which marked a similar period at the beginning of the nineteenth century ; and just as the latter was due to the introduction of quantitative measurements into experimental chemistry, so have the recent strides followed the application of still more refined methods of measurement and the increased employment of mathematical reasoning. Perhaps one of the most interesting features of the modern theories is the resuscitation of some old ideas which had died a natural death for want of experimental support. Such was Prout's hypothesis which, apparently contradicted by the most careful experiments, has now been shown to contain a very fundamental truth. Again, Davy's complaint, made more than a century ago, that his balance was not sufficiently sensitive to enable him to weigh the light emitted during a chemical change has provoked on many occasions the smile that greets an entertaining joke ; yet within the past three or four years the actual determination of the weight of light has provided one of the most sensational triumphs of mathematical reasoning and of modern stellar photography.

It will be obvious that in a book of less than three hundred pages these subjects can only be touched on lightly ; but the exposition is so lucid, and the arrangement of the material so skilfully contrived, that the reader is left with a sense of completeness, which in a book of this type is what is chiefly wanted. The author states in the preface that he has

"not attempted to popularise unduly or, with such an end in view, to slur over all the difficulties. But although this book cannot be read without close attention" his aim has been "to render the ideas of which it treats intelligible to the cultured general reader." The truth of this statement will be evident to the "cultured general reader," but whether he finds the ideas treated of intelligible will depend on the particular kind of "culture" he has undergone. Some acquaintance with the sciences of physics and chemistry is certainly necessary in order that this book may be read with profit and pleasure. Given that acquaintance, one can hardly imagine a more interesting and stimulating presentation of modern theory. It can be unreservedly recommended to all who have had some training in physical science, who have not the time or the special knowledge required to read the original works of which this volume contains so masterly a summary. The price of the book is moderate, the type clear, and the typographical mistakes unusually few and unimportant. The persistent recurrence of "Micholson" will only worry those who have the misfortune to be acquainted with that worker's real name. Finally, the translation appears to be excellent, so far as one can judge without having seen the original: at least it is written in clear English, in a style which is neither florid nor "prosy," and with a freedom which gives no hint that it is a translation from another language.

F. L. USHER.

“CLASSICAL SANSKRIT LITERATURE.” *

WE welcome this addition to the *Heritage* series for it so well supplies the long-felt want of a satisfactory text-book on the history of Sanskrit literature which students in our colleges may use. Prof. Macdonell's work on the subject once met this want well enough, but it has remained unrevised for a quarter of a century during which period much new material has accumulated and the need for modifying many an old opinion has arisen. Dr. Winteritz's *Geschichte* is no doubt quite up-to-date; but it is in German and may therefore be left out of account so far as the generality of Indian students are concerned until its promised translation into English, under the auspices of the Calcutta University, is issued. The present work is not so extensive in its scope as either of these. As its title shows, it is confined to the classical period, and even there it leaves out the Drama and stops its review at 1200 A.D. The former deficiency is made good by the author's treatise on the Sanskrit Drama recently announced as published; and nobody need complain of the latter, for whatever is of real worth in Sanskrit literature is more likely to be found before 1200 A.D. than after. Within these limits, it must be said that the work has been admirably done. Owing to the sad lack of definiteness in the matter of dates, the author cannot follow the chronological order in dealing with the subject. So he adopts a classification based upon form and subject matter, restricting the chronological treatment to each separate head. The first chapter discusses the important question whether Sanskrit or Prakrit was the vehicle of early secular literature in India. Dr. Keith ably maintains that it was Sanskrit and shows that already in the time of Patanjali (150 B.C.) all the main branches of Sanskrit literature were known. The three chapters that follow treat of *Karya* or ‘Court Poetry’ as it is sometimes styled to indicate the circumstances in which it thrived and possibly also took its birth. One of these chapters—the best in the book—is entirely devoted to an appreciative consideration of Kalidasa, the prince of Indian poets. Of the five subsequent chapters, each one takes up for discussion some one or other of the remaining departments of Sanskrit learning; and the book concludes with an account of the Indian theories of poetry. The information in this last section is somewhat meagre; but we should still

* *Classical Sanskrit Literature.* By A. Berriedale Keith, D.C.L., D. Litt. *The Heritage of India Series.* Association Press, Calcutta.

feel grateful to the author for recognising the value of this branch and giving it a place in his book. Works on Poetics are not the least important in Sanskrit and as they become better known, we are sure, their worth will be fully appreciated.

One of the questions which Dr. Keith has frequently to consider is that of foreign influence. It is now beyond doubt that such influence is found in one or two spheres of Indian thought, notably Astronomy and Astrology. But the theory of borrowing has been unjustifiably extended to other spheres also. The fact is that in ancient India the best work not only superseded the rest but also led eventually to their disappearance. The superseded works were put aside once for all; and when they were neither copied nor committed to memory, they were generally lost. The result is that the oldest works extant are the best of their kind and it was to account for this peculiar feature that foreign influence was assumed by the early orientalists. But closer study of history has revealed the existence of earlier phases of development; and in a few cases by good luck the very works representing those phases have been recovered. Dr Keith is fully alive to this aspect of the matter and discusses the theory of borrowing in more than one case as a myth. The value of this theory is well illustrated in the case of Sanskrit Prose Romance in regard to which a certain scholar, who once believed that Greek literature had affected it, came on further consideration to the conclusion that precisely the reverse had taken place. It is not historical questions alone that our author discusses. For the first time in such books, so far as we know, has the attempt been made here to put matters of literary importance first and herein lies the chief value of the book. In the case of every important work mentioned, a summary of the contents is given, often based, as it appears, on a first-hand acquaintance with it; and there is added a judicious estimate of its literary worth. The book, in brief, is both scholarly and sympathetic; and we heartily recommend it not only to students in our colleges but also to all that are interested in Sanskrit literature.

M. HIRIYANNA.

REVIEW

Elementary Electricity. By S. G. Starling, B.Sc., A.R.C.Sc., F.I.N.S.T. P.,
Longmans Green & Co.

THE author has succeeded in producing an elementary text-book on Electricity and Magnetism which may safely be placed in the hands of beginners. The treatment of the subject is clear and accurate. Parts of the subject, such as the elementary theory of potential, which offer difficulties to a beginner are dealt with in a simple and intelligible manner. Chapters 12, 13 and 14, which give the elements of the more recent developments of the subject, are well written. Exercises at the end of each chapter, which are carefully chosen, add to the usefulness of the book. We have no hesitation in recommending this book for the use of the Entrance and First Year B.A. students of the Mysore University.

B. V.

The remaining reviews have been printed as review articles. The university and college notes received are deferred to the December issue, the limits of space in this issue having already been exceeded.

EDITOR.

THE THIRD ALL-INDIA ORIENTAL CONFERENCE,
MADRAS, 1924.

THE third session of the All-India Oriental Conference will be held in Madras during the Christmas holidays. His Excellency the Governor of Madras will open the Conference. Mahamahopadhyaya Dr. Ganganath Jha, M.A., D.LITT., Vice-Chancellor of the Allahabad University has accepted the Presidentship of the Conference.

The Conference will last for three days. Papers offered for presentation to the Conference must reach the Secretary by the 1st of November next. A brief summary of the papers indicating the salient issues should be sent along with the papers. These summaries will be published, if the paper should be accepted, for presentation to the members of the Conference for facility of discussion. The time allowed for each paper will be only 15 minutes. Scholars interested in the work of the Conference are invited to take part and submit their papers to the undersigned before the said date.

S. KRISHNASWAMI AIYANGAR,
Honorary Secretary.

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THE MYSORE UNIVERSITY MAGAZINE

DECEMBER 1924

EDITORIAL.

CONVOCATION.—The convocation address delivered on October 29th by Dr. Annie Besant was of especial interest. She urged that modern universities in India should be related more closely to the ideals and practice of India's past. She sought to interpret the spirit of higher education under Hindu, Buddhist and Mahomedan influence ; and in taking a general view of these ancient systems she so arranged the most significant facts that the address will remain a useful monograph on the subject. She did not seek detailed imitation of these ancient institutions but rather the revival of their spirit and attitude—"the veneration for learning, the taking it as a vocation, the simple life of the student, the loyalty to duty, the recognition of dharma. This, adapted to modern life, should be the ideal." More specific suggestions, however, emerge here and there. There is significance for us in the function of the southern "sangam" as (in Dr. S. Krishnaswami Aiyangar's words, quoted in the address) "a body, an academy, of scholars and critics, whose imprimatur was necessary for the publication of any work of literature in Tamil." Indian universities might certainly do important work in the fostering and judging of literary as well as scholastic production. Again, "the great teachers of the past were not concerned with explaining a difficulty, but with stimulating the intellectual powers of their pupils, so that these themselves might overcome it. . . . The hint may be worth considering in modern universities."

But the cardinal fact as regards old Indian institutions for higher study is that, as Dr. Besant said of the southern sangams, "learning was sought for love of learning and not for collateral advantages, such as making a livelihood." Not that special training for one's walk in life was neglected: there was a great deal of difference in the training given to a Brahman, a Kshatriya and a Vaisya. But Vedic studies were common to all three, and religion always was the basis and all-round development the aim. The point is emphasised by Mr. Keay in his *Ancient Indian*

Education.—“ If education is described as a preparation for life, or for complete living, we may say that the ancient Indian educators would fully have accepted this doctrine. But it would have included preparation not only for this life, but also for a future existence. The harmonizing of these two purposes in due proportions has always been a difficult task for educators. If it could be perfectly accomplished many of the problems of education would be solved. But in practice there has always been oscillation. Thus in the Middle Ages in Europe stress was laid upon preparation for the world to come, while modern European systems often tend unduly to ignore this side of education. India has had the same problem to face, and has had similar difficulties in meeting it. The young Brahman was being prepared by the education he received for his practical duties in life as a priest and teacher of others, but the need of preparing himself for the life after death was also included in the teaching he received. The same may be said of the young Kshatriyas and Vaisyas who were required not only to fit themselves for their practical work in life, but also to study the *Vedas*, and give heed to the teaching of religion.”

Now the planners of modern Indian universities (for instance those who planned our university and those who are now re-planning it) have been animated by these very ideals—that of cultivating the love of learning and that of disciplining the mind and spirit of the student. And this conformity with traditional Indian ideals is assailed on all sides, by Indian critics! An unashamed expression of the views of such anti-educational critics was recently contributed by one of them to the *Bangalore Daily Post*. He began by quoting some remarks in which the Dewan had laid necessary stress upon the usefulness to the State of specific technical courses in the university. But the writer went on to conclusions by no means deducible from the Dewan's timely words. Scrap the humanities! Let the student no longer leave the college with a useless and cumbering load of historical or philosophical learning. As who should say, “These are no days for education! We want human machinery to work machines. Let us out-westernise even the *mythical* west, and value our products with sole reference to their trained capacity for making money.” It is a pathetic rather than a blameworthy doctrine, an error well-nigh compelled by the poverty of the people and by tragic misfits (and more tragic idleness) due to the over-capaciousness of universities. The fact, often reiterated here, is that very many university students ought to be out of the university, which should contain none but men fitted for a certain degree of scholarship. Those who are without this capacity ought to be either in technical institutions of one kind or another or else actually practising a craft. The University must provide technical courses, but

only for men with special gifts, who will be *leaders* in industry, and any university course, whether technical or not, must always have primary reference to the scholarship of the subject concerned. And in any university worthy of the name, pure science will always be of prior importance to applied science, being more closely related to the genius of a university. Those who preach the subordination of learning are hostile to the very idea of a university, and contemners of the Indian tradition. ·

* * * * *

“ORIENTATION.”—Quite unconscious of inconsistency, the same people who decry culture urge with their next breath the Indianisation of education. Here, however, they preach a genuine gospel—but they do not help us, as a rule, in its practical working out. What is “Indianisation” in detail? It is like that question, “What is national dress?” which so furiously agitated the Madras students some few years ago. To give India a type of university education which shall at once express the genius of the race and enable that race to play its peculiarly important part in modern life—this is a problem to be solved by more rigorous methods than those of sentiment or rhetoric. Some definitely useful suggestions were made by a speaker in Madras the other day. “The study of the history of India should be made part of our educational course at every stage.” This is ambiguous. If it means that every student should study Indian History throughout his university course it is obviously absurd. But no doubt the idea is that throughout the school course every student should study Indian History, as strict a test as in any other subject being applied; and that this study should also be an invariable part of any university course in *history*. Here is indicated a sound reform, and one already introduced in Mysore, so far as the University is concerned. It may be added that, as in Mysore, the Professor of Indian History should be both an expert in scientific historical method and one intimately acquainted with ancient Indian literature and learning. His, in great part, is the responsibility of maintaining an *Indian* spirit of enlightenment among the students, and of making that spirit dominant in the university. Part of this same duty should be performed (and in Mysore is performed) by the Professor of Philosophy. Part ought to be performed also by the Professors of Literature—but here is difficulty, for they have to wander out of the syllabus to do this. For this reason the Vice-Chancellor has always contemplated such revision of the literary syllabus as shall make acquaintance with Indian literary classics inevitable. This point also is made by the speaker to whom we have referred. “Indian literature as represented by the *Ramayana*, the *Mahabharata*, the *Bhagavad Gita* and the *Puranas* should be studied by

any student who aspires to a degree in Literature in any Indian university." This is absolutely sound doctrine. In Pachaiyappa's College in Madras, an attempt allied to this was made some years ago: regular lectures on the *Bhagavad Gita* were given to all classes by a Swami. He was an excellent scholar, but the lectures were only partially successful, simply because they formed no part of the curriculum. In an Indian university, literary study, like historical and philosophical study, must proceed by means of comparison, and this cannot be done satisfactorily except in conformity with a precise syllabus.

Alas! the rest of the Madras speech is error or rhapsody. Memory training is to be stressed: "memory has been at a discount in our system, thanks to the new-fangled methods of education." Yet one of the best-founded charges against the "new-fangled methods" is that they train memory at the expense of thought! Again, "Indian Science" is to be taught to all students of science. Will any one kindly prepare a syllabus? There were great scientific achievements, no doubt, in ancient India, but no one knows precisely what they were; nor is the ancient science of any country comparable in method and exactness to modern science. India has first-rate scientists of her own to-day, but they work on western lines, and in this department of study there can be work on no other lines. Then, finally, we have the mystic phrase, "national orientation," and the speaker complains that it has been laughed at. He does not realise that it is ludicrous not in its import but in its tautology. And he declines an answer to the question, "What does national education mean?" "I can answer in many ways," he says, "but to an audience like this it will be a sheer waste of time." It must have been a miraculous audience, intuitive beyond all others. Our whole future depends upon the answer to that question. One must be grateful to this speaker that, before shelving it, he did, as we have noticed, supply a small, valuable part of the answer.

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SCHOLARSHIPS.—The scholarship-allotment time of year is a much more anxious one—alike to students and to staff—than even the examination time. A recent question in the Senate urged greater speed of allocation, but few realise the complexity of the task. Perhaps ninety-five per cent of our students are in actual need of free-studentships. Infinitely subtle are the degrees of poverty, as of merit. If poverty be common, merit counts. Which, then, is the better man, he who scores 45 per cent in Kannada or he who triumphs in 55 for French? (This is, a constant disparity, whether due to difficulty or sternness or generosity we do not know.) Is it better to attain two brilliant 60's and a pair of meagre 40's

or to be a sound and steady fellow with 50 all round? Which should rather be encouraged, he who has once failed but has "pulled himself up" by dogged labour, or he who has never bothered much but has done fairly well throughout by the light of nature? What of the man who has brains but has been ill and is without an examination record, and the other man who, having secured appalling marks, says he had fever all the time? But the chief consideration in giving free-studentships is poverty, and it is to be confessed that here final satisfaction is impossible. Compared with us (the college councils) the Commissioner of Income Tax is lightly burdened. His problems are absolute, ours comparative. He has a profound acquaintance with the basenesses of human nature, while we live in the remote innocence of a university! To begin with, it is impossible to obtain in each case conclusive evidence. "A belongs to a poor but respectable family." "B is in absolute need of a scholarship." What do you mean—and how do you know? Givers of certificates are very frequently far from being sifters of evidence, and yet we are in absolute dependence upon their guarantees. Yet there is no doubt that these certificates, in general, do correctly certify extreme poverty. Our chief difficulty is the grades even within this *extremity* of need. If a man has an income of forty rupees a month, does he not need help in keeping his son at college? If such a man has (as does happen) two sons at college, will they not assuredly be underfed and miserable and quite unable to concentrate upon their work if we do not help them? Yet we have the astounding fact that even such cases are almost beyond our consideration. Students without number have parents whose income is stated at a hundred rupees per year, and two hundred per year, in this melancholy scale, is comparative wealth. Orphans, too, form quite a large percentage of our students. Here enters the "guardian." Very perplexing are the degrees of guardianship. What are to be considered the obligations of a brother, an uncle, an old family friend? And what of *unfulfilled* obligations, whether in the case of parent or of guardian?

The need is so great, and the number of undistinguishably different claims so many, that members of the staff of the Maharaja's College have for many years contributed to a "staff fund" which provides a few additional freeships when Government's allotment, itself exceedingly generous, is exhausted. Very few full-freeships are given in the college: the benefits are spread as widely as possible by awarding half-freeships. For their holders the struggle is scarcely less severe than for the others. There is an immense amount of quiet heroism among our poorer students, some of whom leave college with a life-time of hard experience behind them.

INDIAN ARCHITECTURE.

THE subject of " Indian Architecture " is too vast to be treated in the course of two or three articles. I have therefore to confine myself to what I consider the most important portions of it, dealing with the old hoary Sanskrit literature concerning the principles and design of our old Indian architecture, which definitely establishes the excellence of our styles as also the originality of our old architect-giants, and treating in detail the most important style nearer home to us here in Mysore, the Chalukyan style.

To attempt to speak on the subject of Indian architecture now, after several masters of this theme have given their experience, may appear to some grotesque and a poor parrot's jargon; but if the truth is to be told there is not a single work in print where proper prominence and elucidation is given to our ancient literature related to the glorious ancient edifices of India, the first sight of which has made even modern western architects pause, gaze and wonder.

Mr. B. R. Harrington, a Civil Engineer, who took a lively interest in the Indian ancient architecture, says: " That the great continent of Hindustan possesses an architecture as magnificent as it is ancient and unique, is a fact recognised by a very few of the many hundreds of Englishmen travelling constantly to and from her shores, while by those to whom India is but a name, the statement of such a fact would probably be received with indifference or, at the most, with doubtful surprise. It is difficult to suppose that the Hindu—the thoughtful and cultured Hindu—can see with indifference, or with any feeling less than a real and deep regret, the decay and threatened extinction of an art which, duly fostered, might vie with the grandest achievements of the western world." It is indeed most painful to see even educated Indian architects copying the western styles and entirely ignoring the Indian ones.

Another great authority on Indian architecture, Professor Fletcher, says, in his famous work, *The History of Comparative Architecture*: " The study of Indian and indeed of all eastern art enlarges our view, since it presents many novel forms to which we are unaccustomed. It is certain that in no other style " (than the Indian) " was such patient care and labour bestowed on the minutest detail."

The late Sir James Fergusson, in his monumental work, *The History of Indian and Eastern Architecture*, expresses himself in the

following memorable words: "Architecture in India is still a living art, practised on the principles which caused its wonderful development in Europe in the 12th and 13th centuries; and in these alone the student has a chance of seeing the real principles of art in action. Those who have an opportunity of seeing what perfect buildings even the uneducated Indian can produce, will easily understand how success may be achieved; while those who observe what failures the best educated and most talented architects in Europe frequently perpetrate, may, by a study of Indian models, easily see why this must inevitably be the result."

Professor Max Muller, the eminent orientalist (nicknamed Moksha Muller, or the fighter for the emancipation of the orientals) once wrote to a friend of his in India: "Though I have never been to India, I have spent nearly the whole of my life in the literature of India and among the best creations of the Indian mind; I sometimes feel as if I had almost become an Indian myself. What I want to see in India is the rising of the national spirit, an honest pride in your past history, a discriminating love of your ancient literature. Take all that is good from Europe, only do not become Europeans, but remain what you are, sons of Manu, children of a beautiful soil, seekers after truth, worshippers of the same Unknown God, whom all very truly and wisely serve by doing what is just, right and good." An excellent advice, this, which I want to recommend for adaptation especially by the rising Indian youth, not only as regards literature, which Professor Max Muller has emphasised, but also as regards the old Indian art and architecture.

It must be remembered that Indian art (in which I include sculpture, painting, and architecture) had its foundations in the ancient Aryan civilization, which had already reached its zenith long before the western civilization had come out of its swaddling clothes. Indian philosophy and Indian art and architecture had reached an acme of perfection long before the other nations of the world, probably excepting the Egyptians, had come out of their jungles and nomadic stages. The flying Pusphaka Vimana of Sri Rama was but a myth till the aeroplanes and zeppelins of the last world-war saw the light of day. I may be permitted to point out that in **अगस्त्यसंहिता**, a work the authorship of which is attributed to no less a person than the sage **अगस्ति**, the names of trees the wood of which is suitable for seats in balloons are given, and if balloons did not exist specifications for the wood for seats in balloons should not have appeared in any old work. Similarly the **मोहनारु** and other **अस्त्रा**'s of old were but Puranic hallucinations until we heard of bomb-shells producing tears and unconsciousness amongst soldiers by the emission of gases. History is probably repeating itself in all such cases, and it wants a sympathetic and understanding heart to put faith in old traditions—of

course, combined with a discriminating head. The old Indian art is neither poor nor grotesque. It only wants a very charitable and unbiased mind to study it. Mr. Havell, another great authority on architecture, writes: " Indian art is easily intelligible to those who will read it in the light of Indian philosophy, which inspired both the artists and the people to whom it was addressed. Nothing is more admirable in the great monuments of India than the consummate skill and imagination with which, in spite of the extraordinary wealth of detail, every part of the whole is perfectly adjusted in its place and so balanced that æsthetic unity is always perfectly observed."

Our gratitude therefore is due to all these western pioneers in the investigation of Indian art who have, at least partially, opened our eyes to what is so grand and so fine. A deeper study of the ancient Sanskrit works on Indian architecture is sure to convince us that Indian architecture is not a mere hopeless prehistoric jumble of fanciful creations, a chaos without purpose or meaning, as some, even amongst us, are inclined to believe, but that it is based on real scientific principles. One of my main aims therefore is to bring to notice the valuable ancient books which are available on the subject of Indian architecture either in manuscript or in printed form, and give some of the salient details of design in an ancient Indian structure.

Works on Silpa Sastra or Architecture, as available now, are very few, and even those that are available are scarcely understandable even to our best pandits, since they are full of technical terms which none of those who are not regularly initiated in the art can understand. As to the " silpis " themselves, there are very few left who are now practising the old classical art, and even those few are unacquainted with Sanskrit, in which language the whole art is locked up. Our pandits can certainly understand and translate any work on religious rites, astrology, grammar, logic, law, mythological poetry or metaphysics; but the practice of architecture, sculpture, painting, etc., has been confined for ages to a class of uneducated people, who do not understand a word of Sanskrit. Thus our Sanskrit-knowing pandits can ill understand the technical terms of architecture, as they are not conversant with the practice of the art, while our silpis who do practise the art, of course in a very debased form now, cannot understand the fountain source from which the art has emanated. It is vain to look for the meanings of any technical terms in our present day dictionaries. The result of all this has been that Indian architecture has been so far an unexplored field in spite of the recent commendable endeavours of such gifted persons as Mr. Ram Raz, M. A. Anandalwar (a Mysore Engineer), and some Bombay Engineers, like Mr. V. K. Vaze. A revival of the art must come from ourselves, especially at the present

day, when our old classic styles stand in imminent danger of being wiped out for ever. The study and revival of our own Silpa Sastras is therefore the paramount necessity of the moment and thus only will it be possible to adapt the chaste and pure styles of old to modern requirements and designs.

For the past five hundred years and more, spoliation, vandalism, disuse and age have been doing their worst in the deterioration of Indian architecture. If we do not awake it will become a dead art beyond reviving; and, what is worse, it is getting debased by the admixture of inharmonious foreign styles, producing all sorts of hybrids.

There is also another standpoint from which we may envisage in true perspective the real value of architecture. For, as Ruskin, the great architect, has put it, "all architecture is but the expression of the national life and character." Architecture therefore leaves standing monuments helping the succeeding generations to understand the past. For example, the solid Doric style of Greece truly represents the martial spirit of the people of Sparta and Athens; the pyramids and pylons of Egypt show in what reverence the Egyptians held the memory of the dead and the way in which they succeeded in perpetuating this for all futurity. Similarly, coming nearer home, we see truly depicted in the fine temples of Srirangam, Rameswaram, Halebid and Belur the Bhakti of the Indian, his fervent and patient devotion, his exquisite sense of beauty and proportion, which alone are responsible for the production of such treasures of architecture.

Until lately some western architects considered the Greek architecture as the starting point for all the other styles of the world, even including the Indian. But after the recent discoveries of the pyramids and the tombs of the Pharaohs, the excavations of the ruins of Nineveh, and the exploration of the valley of the Nile, in which numerous relics of ancient Egyptian civilization like the tomb of Tutankhamen have been discovered, this pet theory has been definitely abandoned. It is now recognised that Egypt gave the first quickening impulse to Crete and Crete to Greece, which in turn has been admitted to be the source of inspiration for all the present day western civilization.

Architecture has always been, as I have already pointed out, the hour and minute hands of the cults of each nationality. It might astonish people to know that there is a remarkable affinity between the Egyptians and the earliest Indo-Aryans, not only in their ancient history but also in the essentials of religion and art. For example, the Egyptian God, Osiris, who was the Lord of the Night, is the same as our God Iswara, the God of Darkness or तमस्. The bull was sacred to the Egyptian God, Osiris, as also is नारदिकलेखर the eternal adjunct of God Iswara. Phallic worship was and is an ancient idea both in Egypt and in India. Corresponding

to the Indian Trinity, Brahma, Vishnu, and Iswara, the Egyptians had the Morning Sun, the Mid-day Sun and Horus who enveloped the world in darkness. In ancient Egypt the cow was sacred to the kings of the ancient dynasties, as has been ascertained from the excavations of the eleventh dynasty temples of Egypt in Deir-el-Bahari about 30 years back. A Hathor cow has been discovered in one of these temples.

The Egyptians, the Indians and the Greeks were all influenced by more or less the same impulses, producing a similarity of form in architecture, which was trabeated in the early stages of all types. The Indian gopura beautifully corresponds to the Egyptian and Babylonian cigarettes and pylons, which are all trabeated towers in general. The Indian mantapas practically correspond to the Egyptian and Greek hypostyle halls. The very word " cigarette " is probably the same as the Sanskrit word " sikhara." The lotus-leaf pillars of Egypt and Greece are also seen in India. Similarly, practically all the Greek and Roman mouldings have their exact parallels in our own Silpic mouldings, given in our Sastraic books. Hence, as Havell points out, " the Greeks no more created Indian sculpture and painting than they created Indian philosophy and religion." This remark applies with unmitigated force to all the three legs of the art-tripod—architecture, painting and sculpture.

OLD SANSKRIT LITERATURE ON SILPA SASTRA.

Let me now pass on to the consideration of some of our old valuable books on the subject, and point out in detail some of the salient Sastraic principles which have been responsible for the design and construction of our old and magnificent temples, like those at Srirangam, Madura, Rameswaram, and Conjevaram.

Every Aryan, in ancient times, was expected to master all the old Sastraic sciences and arts. The sciences were thirty-two in number and were—the four Vedas, the four Upa-Vedas, the six Vedangas, the six Darsanas, the Puranas, the Itihasas, the Smritis and also economics, languages, rhetoric, comparative religion, etc., and last but not least, architecture. There were also sixty-four arts, which are too many to name here, but among these were included sculpture and painting. There were regular rules framed for every one of these. The Silpa Sastra or Science of Architecture or what is technically known as Architectonics is supposed to have included not only temple and building construction but also the making of idols for worship. It is understood that this subject has no less than twelve lacs of श्लोकाः in अनुष्टुप् rhyme, each verse containing thirty-two letters. There remain the names of 26 sages and learned men who were responsible for this voluminous literature.

WORKS ON SILPA SASTRA.

Many of the ancient works on Silpa Sastra are available, if at all, only in a manuscript form, and even this only a fortunate few can have the chance of seeing. May it not be possible for the authorities to set investigations afoot in this matter and collect as many manuscripts as possible of the different works on this important subject? The science is so old and so valuable that it justifies any amount of trouble and cost, and hence I hope my request will not go in vain. Even among the works on this subject whose names are spoken of, we can get only a few manuscripts more or less in a woe-begone condition. Some of these are:—Manasara, Mayamata, Casyapa, Vayghanasa, Sanhita, the Sakaladhikara, the Vishwamitra Sanhita, the Manushyalaya Vidhi, the Vastu Sastra, and the Sanat-Kumara Silpa. Practically all these works are said to be available only in a mutilated condition and full of gross errors perpetuated by a succession of ignorant transcribers; but besides this difficulty, they are so full of technical terms that no ordinary exertion is necessary to get at their exact import. But, in my opinion, the trouble is fully justified by the treasure locked up in these works, and persistent efforts by qualified persons are sure to give tangible results.

The first of the works named above, entitled Manasara, may be said to be the most perfect. Its authorship is ascribed to a Sage Manasara, which is clear from a verse at the close of the first Adhyaya:

मानसारश्चिणा कृतशास्त्रं । मानसारविदिता क्रमसिद्धिः ॥

This work has got very valuable, elaborate and exhaustive details in connection with *temple* and *house* architecture and also *town planning*, according to our old Hindu ideals. In this work can be found laws of sculpture, rules for the orientation of houses and temples and their foundations, rules for the construction of pedestals, bases, shafts and capitals of pillars, rules about the entablature including the cornice, rules about the construction of vimanas or towers over the sanctum sanctorum, and rules about the construction of gopuras or the pyramidal towers adorning the front of all the South Indian temples, as also rules about the selection of proper sites for different kinds of temples and for dwelling houses.

This book seems to have been the standard authority for consultation in Southern India from time immemorial, when problems connected specially with temple architecture required an authoritative solution. Unfortunately, it is not available in a printed form and it is difficult to get at even a decent manuscript. From the poor manuscripts that are available, it appears that the book consisted of *fifty-eight* adhyayas or chapters. Mr. Ram Raz, who was first connected with the Madras Service and then was a judge and magistrate at Bangalore, and, who wrote a

book on Indian architecture nearly a century back, for the edification, as he says, of the westerners, seems to have possessed a manuscript of this book, but even that was in a tattered form and contained no more than forty-one adhyayas. Mr. M. A. Anandalwar, Retired Executive Engineer, Mysore P.W.D., has also written a book the first part of which deals with Indian architecture, with the help of another **मानसार** manuscript which he seems to have possessed. I have written to some oriental libraries for information about this book, whether in a printed or a manuscript form, but the result so far has been discouraging. The attempts of the two gentlemen mentioned above are no doubt commendable, but still, I think, much of the meaning in the book remains unexplored, and I therefore solicit to this subject the earnest attention of our oriental scholars. The date of this famous work, the *Manasara*, is fixed by some western scholars as late as the *third* century B.C., but others are of opinion that it is older.

The second work, entitled **मयमत**, is the next best, and the subjects treated and the arrangement of treatment are practically similar to those in the work discussed above. It treats of the construction of the gnomon for orienting correctly, and gives rules for the examination of the soil and the planning of the building with reference to the utilitarian and æsthetic points of view. After this it describes the several types of villages, cities, and fortresses, the up-pithas or pedestals, the **अधिष्ठान**s or bases, the **स्तम्भ**s or pillars, the **प्रस्तर**s or entablatures, the several types of mouldings used in cornices, pillars, etc., the sikhara, the several sorts of temples, the courts by which they are surrounded, the pyramidal gateways, the mantapas or porticoes, and concludes with instructions for the carving of images, etc. The antiquity of this book seems very difficult to decide, as the authorship is attributed to the Divine Maya, the architect of the Gods and Asuras. This name may be only a generic name, applied to a master-architect or to a great descendent of the Divine Maya, as for example the **मय** of Dasaratha in "Ramayana" and **मय** of Duryodhana in "Mahabharata," who was responsible for constructing the wonderful palace made of lac, with the object of destroying the Pandavas before they proceeded to their banishment. There is however, no doubt that the date of this book also must be somewhere in the B.C.'s. This work is now available in a printed form in the Trivandrum Oriental Library, and Mr. V. K. Vaze, L.C.E., of Bombay is trying to translate it in an understandable form. But even so the endeavours of other Sanskrit scholars and other engineers should be turned in this direction.

The third work named above, Kasyapa, is attributed to the great and celebrated sage whose name it bears, and who was one of the seven

sages saved from the Universal Deluge. This book is composed in a dramatic form and is more succinct than the two former. The subjects treated are nearly the same as those in the two works mentioned above, though the arrangement is somewhat different. It treats of the suitable kinds of soils for buildings, preparatory rites and sacrifices to the Vastu-Purusha, the deity presiding over the site, the construction of sankhu or gnomon, the laying of the foundation stone, the pedestals, bases, gates of temples, doorways of houses, pillars, capitals, cornices, aqueducts, several types of vimanas or towers of from one to sixteen stories, the toranas or ornamental arches over gateways, statues of gods and saints, etc.

K. D. JOSHI.

(*To be continued.*)

THE LIFE AND TIMES OF DANTE.¹

DANTE Alighieri was born in 1265 A.D. and died an exile from his native city Florence in 1321. Speaking of the last and most familiar portions of the middle ages—namely the twelfth and thirteenth centuries—Professor Gardner² says: “It is the period of chivalry, of the crusades and of romance, of scholastic philosophers and Provencial troubadours; the period which saw the development of Gothic architecture, the rise of the Franciscan and Dominican orders, the elevation of Catholic theology into a system. The Dante student may, perhaps, read these two centuries as a vast historical poem in which mankind’s two divinely appointed guides according to the Dantesque conception—the successor of Peter and the successor of Cæsar—are engaged in deadly conflict. . . . The poem, if we may call it so, opens in February 1076 when Roland of Parma bore to (Pope) Gregory VII the defiance of Henry IV; it closes in February 1266, on the plains of Grandella near Benevento, when Charles of Anjou, the brother of St. Louis and the Church’s champion, defeated Manfredi of Sicily, the son of Frederic II and representative of the imperial cause, and the legate of Pope Clement refused Christian burial to the fallen King.” Manfred had usurped the throne of Sicily from his nephew. The Popes naturally opposed him as a Ghibelline and excommunicated him. They called to their aid Charles of Anjou, brother of the French king and crowned him as rival king of Sicily. He defeated Manfred at Benevento, near Naples. Manfred’s body was disinterred from the cairn of stones beneath which the soldiers had buried him and was deposited, by order of the Pope, on the banks of the river Verde outside the boundaries of the Kingdom of Naples and of the Papal States with the rites usual at the burial of those who died excommunicate.³ This battle of Benevento in 1266, the year after Dante’s birth, marks an epoch in Italian history. It transferred the power from the German emperors to the French kings. The imperial power was at an end in Italy; but the Popes, by calling in this new foreign aid, had prepared the way for the humiliation of Pope Boniface at Anagni and the long fourteenth-century exile of the Papacy—the “Babylonian Captivity” of the Church—from Rome to Avignon. The preponderance in Italian politics

1 This is part of a lecture originally written as an introduction to the lectures on Dante which have already appeared in this Magazine.

2 Edmund Gardner *Dante* in the “Temple Primer Series.”

3 *Purgatorio*, III, pp. 124-132.

had passed back from Germany to France. Three weeks after the battle, Charles entered Naples in triumph, King of Apulia and Sicily—an An-gevin dynasty was established upon the throne of the most potent state of Italy. We must remember that at the beginning of the fourteenth century Italy was divided into three zones. To the south lay the kingdom of the two Sicilies, *i.e.*, Apulia with Naples for its capital and Sicily. Then came the states of the Church extending diagonally across the peninsula. To the north and west lay the many city-states of Tuscany, Lombardy and Venetia.

In the quotation from Professor Gardner occurred the phrase "mankind's two divinely appointed guides according to the Dantesque conception—the successor of Peter and the successor of Cæsar." This phrase needs elucidation. It is essential to a proper understanding of Dante that we see clearly what was his conception of the true relations of Church and State—of Pope and Emperor. How far was he an imperialist? Can his Catholic orthodoxy be called in question? Was he right or wrong in being a Ghibelline? How was it that he, an ardent lover of Italy if ever there was one, welcomed so glowingly the invasion of Italy by the Emperor Henry VII of Luxemburg in 1310? Was not one foreign domination as bad as another? To answer these questions one must read Bryce's wonderfully able essay *The Holy Roman Empire* and Dante's work *Monarchia* as well as *Paradiso*, Canto VI.

The mediæval conception of the Holy Roman Empire was briefly this—that Christendom was a unity—that "the Emperor was the supreme head of the *universal monarchy* and the Vicar of God in things temporal even as the Pope was the supreme head of the *universal church* and the Vicar of God in things spiritual. Church and Monarchy, Papacy and Empire, alike proceeded from God, and were inseparably wedded to Rome, the eternal city; from which as two suns they should shed light upon man's spiritual and temporal paths, as divinely ordained by the infinite goodness of Him" ¹ "from whom as from one point the power of Peter and of Cæsar divides." ²

It is not difficult to see how these two ideas of a World-Monarchy and a World-Religion derive from the imperial sway of Augustus Cæsar and from the establishment of Christianity as the religion of the Empire by Constantine the Great after his own conversion in the 4 century A.D. "Before the conquests of Rome, men with little knowledge of each other, with no experience of wide political union wherein subject races were assimilated, had held differences of race to be natural and irremovable barriers. Similarly religion appeared to them purely local and

¹ Edmund Gardner *Dante*. "Temple Primer Series, pp. 65."

² *Dante's Letters* V. 5.

national: The Roman dominion giving to many nations a common speech and law, smote this feeling on its political side; Christianity more effectually banished it from the soul by substituting for the variety of local pantheons the belief in one God, before whom all men are equal."¹ Mediæval theology required one visible Catholic Church. To acquiesce in the establishment of national churches would have appeared to mediæval theologians as contradictory to the nature of a religious body, and opposed to the genius of Christianity. Even so did the clergy of the seventh and eighth centuries uphold the idea of political unity. For in their metaphysical view general concepts (*genera* and *species*) were real things, existing independently of the individuals who composed them, *recognized* rather than *created* by the human mind. Humanity is an essential quality present in all men and making them what they are: as regards it they are therefore not many but one, the differences between individuals being no more than accidents. The whole truth of their being lies in the universal property which alone has a permanent and independent existence. The common nature of the individuals thus gathered into one Being is typified in its two aspects, the spiritual and the secular, by two persons, the World-Priest and the World-Monarch, who present on earth a similitude of the Divine Unity. Every act of man has a social and public, as well as a moral and personal bearing. Therefore the rules which directed, and the powers which rewarded or punished, must be parallel and similar, not so much two powers as different manifestations of one and the same. That the souls of all Christian men should be guided by one hierarchy, rising through successive grades to one supreme head, while for their deeds they were answerable to a multitude of local, unconnected, mutually irresponsible potentates appeared necessarily opposed to the divine order. The ideal State was supposed to be embodied in the Roman Empire.² Hence the title Holy Roman Empire. But no sovereign in Christendom was formally and truly a Roman Emperor until he was crowned by the Pope (or a Pope) in Rome itself. There was to come a day, however, when the cynic could truly say that the whole conception was false and out of date—when it was not holy, nor Roman nor an empire. This was inevitable after the rise and growth of independent national monarchies and nation states. Yet, as Bryce points out so clearly in his book (Chapter XV), it was precisely this separation of the peoples of Europe into hostile kingdoms constantly warring against one another or torn within by frequent insurrections and desolated by long and bloody civil wars that called for some controlling international power. The new nationalities had grown

1 Bryce: *The Holy Roman Empire*, Chapter VII.

2 Bryce: *The Holy Roman Empire*, Chapter VII.

up in spite of the Empire and the Church and could not be extinguished. "But it still appeared possible (to political thinkers) to soften if not to overcome their antagonism. Some presiding power common to all Europe might be erected, a power which, while it should oversee the internal concerns of each country, not dethroning the king, but treating him as an hereditary Viceroy, should be more especially charged to prevent strife between kingdoms, and to maintain the public order of Europe by being not only the fountain of international law but also the judge in its causes and the enforcer of its sentences. To such a position had the Popes aspired. For such a position they were in many ways excellently fitted: the sacredness of their office was respected, they wielded the tremendous weapons of excommunication and interdict; they were supposed to be, and sometimes were, exempt from the narrowing influences of place, blood and personal interest. Nevertheless on the whole the Papacy had been tried and found wanting. Men found its decisions biassed too often by a partiality to the most submissive. What moreover was the Papacy in the fourteenth century but a willing tool of France? In the pursuit of temporal power it had mingled in, and been contaminated by, the unhallowed politics of Italy; its supreme council, the college of cardinals was distracted by the intrigues of two bitterly hostile factions."¹ That outspoken letter Dante wrote on the death of Clement V who had transferred the Holy See from Rome to Avignon, conjuring the cardinals in terribly outspoken words to compose their bitter feuds and choose an Italian Pope who should once more reign in Rome—"the city that doth sit solitary, that was full of people, the city that is become as a widow—she that was great among the nations"—that letter of flaming, scourging reproach shows us that Dante always manifested the greatest reverence for the throne of St. Peter, for the spiritual authority of the Church, in all his bitter wrath against the sins, as he conceived them, of individual Popes. The Pope whom Dante most particularly reprobated in his individual capacity—Boniface VIII—made the most extravagant pretensions to temporal power when he showed himself to the crowding pilgrims at the Jubilee of A.D. 1300, seated on the throne of Constantine arrayed with sword and crown and sceptre shouting aloud, "I am Cæsar—I am Emperor." Probably three times only in history did the relations between the Empire and the Papacy actually accord with the mediæval theory that I have sketched above. In Dante's day most fervent churchmen claimed the supremacy of the Papacy on the ground of the superior importance of the religious life of man. They declared the Pope sole representative on earth of the Deity and that therefore from him and not directly from God must the Empire be held—almost as if it

1 Bryce, Chapter XV.

were a feudal fief. Thus they would thrust down the temporal power, to be the slave instead of the sister of the spiritual. This view was anathema to Dante. Did not Christ himself say " My kingdom is not of this world "? Dante disputed the legality of the so-called Donation of Constantine now known to be a forgery of about the ninth century. This famous charter was reputed to have been given by Constantine to Pope Sylvester in gratitude for his cure from leprosy. It tells how Constantine resolved to forsake Rome for a new capital on the Bosphorus, lest the continuance of the secular government in Rome should cramp the freedom of the spiritual, and how he bestowed therewith upon the Pope and his successors the sovereignty over Italy and the countries of the west. Dante strenuously maintained that Constantine's Donation was illegal; no single emperor or pope could disturb the everlasting foundations of their respective thrones; the one had no right to bestow, nor the other to receive, such a gift. He showed that the Empire existed before Peter's See and was recognized by St. Paul when he appealed to Cæsar. The Papacy could not claim temporal power either by natural law or divine ordinance or universal consent. I cannot here detail the arguments of the *Monarchia*. I can only give the conclusion, " man's nature is twofold, corruptible and incorruptible: he has therefore two ends, active virtue on earth, and the enjoyment of the sight of God hereafter; the one to be attained by practice conformed to the precepts of philosophy, the other by the theological virtues. Hence two guides are needed, the Pontiff and the Emperor who, that he may direct mankind in accordance with the teachings of philosophy to temporal blessedness, must preserve universal peace in the world. Thus are the two powers equally ordained of God, and the Emperor, though supreme in all that pertains to the secular world, is in some things dependent on the Pontiff, since earthly happiness is subordinate to eternal. Let Cæsar therefore show towards Peter the reverence as of a first-born son to his father." Bryce puts Dante's position succinctly. " Weary of the endless strife of princes and cities, of the factions within every city against each other, seeing municipal freedom, the only mitigation of turbulence, vanish with the rise of domestic tyrants, Dante raises a passionate cry for some power to still the tempest, not to quench liberty or supersede local self-government but to correct and moderate them, to restore unity and peace to hapless Italy." There are lines in the VI Canto of the *Purgatorio* (ll. 88-89) which show us clearly that what was in Dante's mind when he spoke of the Roman Empire was an executive power adequate to enforce Roman law. The Emperor of Rome was the traditional champion of Roman law and civilization which represented the native Italian aspirations. The king of the Germans was the feudal head of the territorial nobility who repre-

sented the invaders and conquerors of Italy. Since it happened that the king of Germany and the emperor of Rome were one and the same person, it was possible to regard him as the representative of either of the two conflicting tendencies and ideals, on the clash of which the whole mediæval history of Italy turns.¹ We, also, in this twentieth century are still seeking to erect a tribunal to arbitrate and decide between the nations with power to enforce its decisions. Were Dante living now he would be one of the warmest supporters of the League of Nations.

The terms *Guelf* and *Ghibelline* that occur so frequently in this epoch of European history need some explanation. Originally clear cut and distinct in their reference, they became confused and misleading. Italy borrowed these names from the domestic quarrels of Germany. The Welf family was descended from a ninth-century Marquis of Tuscany and in the eleventh century acquired the Duchy of Bavaria. Upon the Hohenstauffen dynasty who hailed from Waiblingen in Wurtemberg was conferred the Duchy of Suabia, also in the eleventh century. These two families became rivals for the Empire—Welf and Waiblingen were their battle cries. Matilda, Countess of Tuscany, who bequeathed so many of her possessions to the Church in the twelfth century, married one of the Welf family. The Popes were constantly aided by the Welfs against the aggressions of the Emperors of the Hohenstauffen dynasty who were of the Waiblingen family. Hence in Italy the partisans of the Papacy were called *Guelf*—the partisans of the Emperors, *Ghibellines*. In Italy itself the real struggle was between the feudal aristocracy introduced by the northern invaders and the cities and municipalities; the relics of the original Roman imperial civilization. These great trading cities on the coast, in Lombardy, the Romagna and Tuscany had gradually bought for themselves municipal liberties. They found protection chiefly under the banners of the Pope. They formed powerful leagues under Papal auspices, and more than once stood firm against the inruptions of the Germans. The Peace of Constance in 1183 A.D. elevated them to the rank of independent powers. Henceforth the *nobles* were in the service of the emperor; the *popular interests*, the *democracies*, worked for the popes. Thus, the *Guelfs* represented those who fought for municipal and republican freedom; the *Ghibellines* represented the party of feudal aristocratic privilege. Towards the end of the thirteenth century the nobles were disfranchised in many cities such as Bologna, Brescia, Padua. They retired to their castles and city palaces and began to intrigue; and succeeded in re-establishing in many republics hereditary lordships, after serving in various cities as Papal or Imperial Vicars, or as Podestas (governors

¹ *Vide Wicksteed's note on the above lines in the Purgatorio, "Temple Classics" edition.*

chosen by the people), or as military leaders and captains of the people called in by one or other faction in the cities which were constantly at war with one another or against the feudal aristocracy in their neighbourhood. Examples of hereditary lordships, no doubt often softened by the retention of quasi-legal forms and names, are the Scaligeri in Verona, and the Da Polenta in Ravenna.

Over and above the *general interests* of the aristocracy and the democracies—*individual and particular* interests divided cities, townships, and families. We read of wars between Venice and Genoa, Florence and Pisa, Pistoia and Arezzo; we see the bitter rivalries of great families such as Shakespeare has made familiar to us in “Romeo and Juliet”—

the Montagues and Capulets in Verona.

the Gieremie and Lambertazzi in Bologna.

the Torriani and Visconti in Milan.

the Orsini and Colonna in Rome.

the Cerchi and Donati in Florence.

It was a state of private wars, brigandage and social chaos in which the intervention of the foreigner was almost a blessing. There were at this epoch three foreign powers only too ready to intervene,—the Germans, the French, the Aragonese. Those whose hatred of the French caused them to welcome Henry of Luxemburg in 1311 A.D. were called Ghibellines, even though in their ranks were found many of the oppressed who cursed the tyranny of the great nobles and dreamt of a return of republican glories. The party of the French and the Popes generally kept the name of Guelf. Thus you will see from this brief general sketch of Italy in the thirteenth and early fourteenth centuries how confused these party cries had become and how difficult it is to assign Dante, who in a sense stands above party, to either side definitely. He revered the Church; he systematically attacked feudalism and inherited privilege. Thus he inclined to the Guelfs. On the other hand, his monarchical theory and his hatred of France inclined him to the Ghibellines. But, in truth, he formed “*a party to himself*” and casts blame and reproach impartially on both Ghibellines and Guelfs and on both sections of the Guelfs—the Blacks and the Whites—to the latter of which he had belonged before his exile. He might be termed an *ideal Ghibelline*.

It is now time to turn to the history of Florence and Dante's share in it. Dante was born during a time when the Ghibellines held sway in Florence. The Ghibellines had regained control by their victory at Montaperti in 1260 A.D. and “the havoc and the great slaughter which dyed the Arbia red.”¹

The popular government of the Republic had lasted only ten years,

but was destined shortly to come again into its own. We must remember that with the defeat at Benevento in 1266 and the extinction of the Hohenstaufen dynasty in 1268, the imperial or Ghibelline cause lost ground. At the time of Dante's birth the city was governed by a despotic Ghibelline aristocracy, under an Imperial Vicar, supported by German mercenaries. All the leading Guelf families were driven out. Dante's father, however, though descended of a noble Guelf family, seems to have been of too small account and was allowed to remain and continue his practice as a notary. The Guelf success at Benevento in 1266 drove out the Ghibelline nobles and restored the popular democratic government. In Florence the real struggle of Guelf and Ghibelline was a struggle for supremacy between a democracy of merchants and traders organised in guilds and a military aristocracy of partly Teutonic descent, who were gradually being deprived of the territorial and feudal sway which they had held, nominally from the Emperor, in the country districts of Tuscany. The contending principles were municipal freedom and feudal despotism. Unfortunately the successful Florentine Guelfs, organised in a powerful *society*, split into two factions—the *Grandi* and the *Popolani*, *i.e.*, the *magnates* or *Grandi* in their palaces and towers, associated into societies and groups of families, surrounded with retainers and swordsmen but always divided among themselves, and the *people*, the *Popolani*, “very fierce and hot in lordship” artisans and traders ready to rush out from stalls and workshops to follow the standards of their guilds in defence of liberty. The Ghibellines tried to win their way back aided by the people of Siena but were routed by the Florentines at the battle of Colle di Val d'Elsa in 1269.¹ During the two succeeding decades, the Popes intervened and attempted to restore some of the exiled Ghibellines and to reconcile the Guelf magnates among themselves. By their efforts some Ghibellines were allowed a share in the administration but the government became still more democratic when the priors of the guilds and the captains of the people became the chief magistrates. The central government of the republic was thus entirely popular but the magnates still retained control over the captains of the Guelf Society with their two councils, and exerted considerable influence upon the Podesta, (always one of their own order and a foreigner), in whose councils they still sat. The Ghibelline league of Tuscany made another bid to regain power but was once again routed, at Campaldino in 1289, when Dante “fought valiantly on horseback and in the front rank,” on the Guelf side. He probably took part in the rest of this Campaign—passages in the *Inferno* obviously relate his personal experiences.² After this victory unfortunately the nobles grew peculiarly aggressive

¹ *Purgatorio*, XIII, 115—120.

² *Inferno*, XXI, 94—96, XXII 4—6

towards the people and factious against each other.¹ Then a certain nobleman Giano della Bella, a great democratic leader, by his Ordinances of Justice in 1293 excluded them from the Priorate and was intending to deprive the captains of the Guelf Society of their power and resources when he was killed in a riot raised by Corso Donati in 1295. By his fall, the government remained in the hands of the rich burghers. Then arose a disastrous feud between the two great families, the *Cerchi* and the *Donati*, the former more moderate and democratic—the latter proud and aristocratic. The *Cerchi* were known as the *Bianchi* or White Guelfs, the *Donati* as the *Neri* or Black Guelfs. Corso Donati, leader of the Blacks, was high in favour with the Pope.

Boniface seems to have had a desire to make Tuscany a part of the Papal States. He demanded from Albert of Austria the absolute renunciation to the Holy See of all rights claimed by the Emperors in Tuscany. Certain agents of Boniface were caught plotting in Florence and the Priors refused to annul their sentence. They denied the Pope's jurisdiction in such a matter. In May 1300 the Blacks and the Whites came to blows and the whole city was divided. The Pope sent a Cardinal as peacemaker in June. Now from June 15 to August 15, 1300, Dante *one of the Whites* was one of the six Priors (by election). He felt that the Cardinal's real object was to overthrow the Government in the interests of the *Neri* or Blacks. The Priors refused his demands and Florence was placed under an interdict. Disturbances continued until at last the Priors banished prominent members of both factions, including Corso Donati, who appealed to the Pope. The *Bianchi* were now all powerful and in May 1301 caused Pistoia to expel the *Neri* refugees.² The Pope summoned Charles of Valois, brother of the French king Philip the Fair to reduce the rebels in Tuscany, before proceeding on his way to aid Charles of Naples against the Aragonese in Sicily. Dante in a council meeting opposed the granting of any subsidy or soldiers from Florence to aid the Pope. He was marked out at Rome for special destruction.³

On November 1, Charles of Valois entered Florence after giving solemn pledges to the Signoria. Trusting in his oath, they gave him authority to pacify the city. Instead, he restored the *Neri* to power. The Pope made another effort to reconcile the factions. Charles and the Blacks resisted. The *Bianchi* were ruined, proscribed and driven out as rebels. On a false charge of "barratry," *i.e.*, fraud and corruption, extortions, etc., when in office, Dante was sentenced to exile in January 1302. His real offence had been opposition to the policy of Pope Boniface.

¹ *Paradiso*, XVI, 132

² *Inferno* XXIV, 143.

³ *Paradiso* XVII, 49-51.

It was now the turn of the Whites to make efforts by arms to re-enter Florence. They were scattered in various cities Arezzo, Forlì, Siéna and Bologna. For a short time Dante made common cause with them but found their society extremely uncongenial. Later, his fellow exiles, for some unknown reason, turned violently against him and Dante "formed a party to himself"¹ and took no more part in attempts to regain Florence by force. Nor would he submit to the degrading conditions on which Florence amnestied most of the exiles in 1316. Of his wanderings in exile I can only mention the cities he was known to have visited, Verona, Bologna, Padua, the districts of the Lunigiana and the Casentino, Paris (where he studied deeply), and Ravenna. There is an unfounded tradition that he visited Oxford. He hoped for great things from the invasion of the Emperor Henry of Luxemburg—he wrote two terrible letters to "the most wicked Florentines within" and in consequence was excepted from all hope of amnesty. In Verona he received warm hospitality from Can Grande della Scala, a Ghibelline leader and Imperial Vicar. But he needed a more peaceful refuge and so settled at Ravenna in 1317 on the invitation of Guido Novello da Polenta, a Guelf. Here he was joined by his two sons and his daughter but his wife Gemma Donati whom he had married in 1297 refused to leave Florence. At Ravenna the poet had congenial company and instructed scholars and disciples in the poetic art. He had been working on his *Divina Commedia* from 1314 and finished the *Paradiso* in Ravenna. He died of fever contracted on an unsuccessful embassy sent by Guido to the Doge of Venice, on September 14, 1321, in his fifty-seventh year.

F. R. SELL.

COMMUNAL DIFFERENCES IN THE DISTRIBUTION OF "GENERAL INTELLIGENCE."¹

INTELLIGENCE tests like other things have passed through the ordeal of the late war and have emerged triumphant as a result of the colossal labours of the American army psychological staff. Since then one finds that in the western countries the mental tester is ever on the move from one field of application to another; he moves from the school-rooms to the barrack-halls, and from there to the great business-houses and the factories.

In the light of such conquests of fresh realms for the application of intelligence tests, one does not need many words of apology for attempting to apply these tests in India with a view to helping towards a better understanding of the psychological basis underlying the present day socio-political problems that beset and hamper our progress on every side.

Now, one of these questions of first rate importance, at least so far as South India is concerned, is the thorny question of the Brahmin *versus* the Non-Brahmin.

Apart from the communal passions which are but hidden below the surface, there must be some real or fancied reasons at the back of all the agitation for special treatment and protection from the "Brahminical domination." The two sins that are often laid at the door of the Brahmin are that he is too clannish and that he is too "cunning," too "wily,"—shall we say more Intelligent?

It is notoriously true that the Brahmin has in the past jealously guarded the road to official preferment and kept all the fruits of such spoils to himself. Now, in this clannish monopoly of certain professions the Brahmin is not the only one to err. With his clan spirit we are not so much concerned here. But it would be interesting to enquire what support the mental tests would afford to the second charge that the Brahmin is too "cunning."

The mental tests employed for the purposes of this investigation consisted of a combination of Ballard's Absurdities Tests² and his Best Reason Tests. Both these tests of Ballard were modified considerably to

I The writer of the present paper wishes to express here his gratitude to Mr. G. Hanumantha Rao but for whose ready help and sacrifice this work would not have been possible, also to Mr. G. K. Thimmanachar, the Headmaster of the Practising School, Training College, for his kind permission to conduct the tests in his school.

2 See his extremely entertaining little book entitled *The Group Tests of Intelligence* (Hodder and Stoughton).

suit local conditions and then translated into Kannada, in which language the tests were given to about a hundred and fifty school children in the City of Mysore. Their ages range between 9 and 17 years.

For the benefit of the uninitiated one might perhaps be pardoned for giving examples of the Absurdities Test and of the Reasoning Test here. In the first series of tests a number of absurd statements are made each of which is immediately followed by four alternative explanations purporting to point out what is absurd in the statement. All that the boy that takes the test has to do is just to put a cross against that answer which he considers best out of the given four, thus:—

"A man bought a dog that had been advertised. He complained to the seller that the dog's legs were too short. The seller replied 'They are long enough to reach the ground, aren't they? What more do you want?' This is absurd because—

(a) Some kinds of dogs always have short legs.

*(b) A dog's legs might reach the ground and yet be both ugly and useless.

(c) We cannot make the dog's legs longer by stretching them.

(d) The seller of the dog is a great cheat."

Again as an example of the Reasoning Tests we might take the following:—

"Before undertaking anything very important you should—

*(a) Plan it all out properly.

(b) Wash your face and hands clean.

(c) Pass an examination.

(d) Consult the astrologer."

The right answer in either of the tests scores 5 marks. We have marked the right answer in each case with an asterisk. The Absurdities Test carries a maximum of 100 marks and the Reasoning Test a maximum of 75 marks. The distribution curves for the data classified into two groups, Non-Brahmins and Brahmins, are given below:—

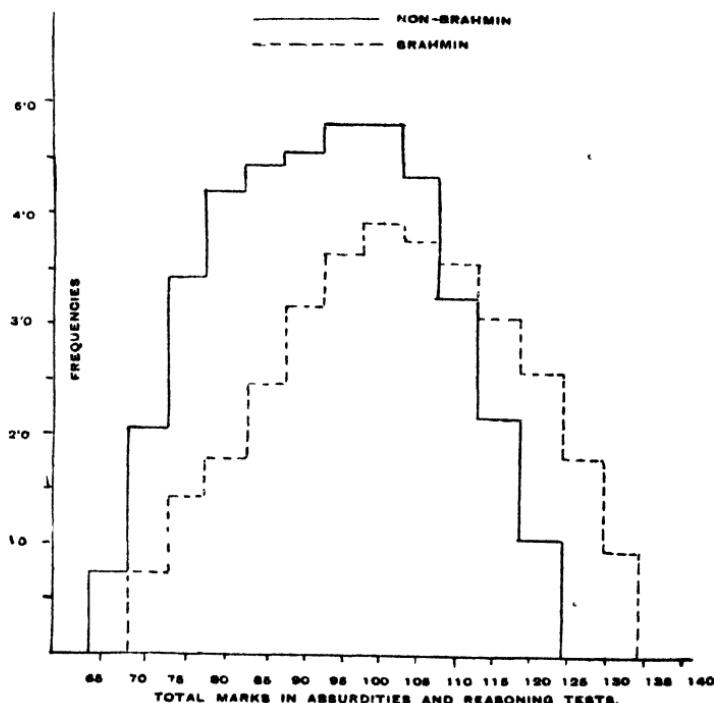
TABLE OF FREQUENCIES (AFTER SMOOTHING) AT EACH POINT ON THE "INTELLIGENCE SCALE."

Points on the "Intelligence Scale" (i.e. total of marks obtained in Absurdities and Reasoning Tests)	Frequencies	
	Non-Brahmins	Brahmins
65	0.7	0.0
70	2.0	0.7
75	3.4	1.4
80	4.2	1.7

TABLE OF FREQUENCIES *concl.*

Points on the "Intelligence" Scale (i.e. total of marks obtained in Absurdities and Reasoning Tests)	Frequencies	
	Non-Brahmins	Brahmins
85
90	..	4.4
95	..	4.5
100	..	4.8
105	..	4.8
110	..	4.3
115	..	3.2
120	..	2.1
125	..	1.0
130	..	0.0
		0.0

DISTRIBUTION CURVES.



GENERAL CONCLUSIONS.

The above Distribution Curves, though they do not prove, seem to suggest, the following conclusions:—

1. That the Non-Brahmin average is not below that of the Brahmin is a fact well worth pondering about, the central tendencies of both groups being at about 100 points.

2. Nevertheless there is a remarkable difference between these two groups from the point of view of their scatter, or variability round the average. While we obtain a very good normal curve in the case of the Brahmin group, the data of the Non-Brahmin group do not conform to the normal curve.

3. There is an abnormal flatness about the middle region of the curve of the Non-Brahmin group, i.e. from 80 to 105 points. Now this would seem to suggest that the Non-Brahmin group relative to the Brahmin group lacks homogeneity. Probably this flat range of 25 points represents the region where the averages of the different Non-Brahmin communities all converge and partially overlap one another.

Thus it is possible that each Non-Brahmin community, like that of the Christian, the Mahomadan, the Vokkaliga, has its own separate average lying somewhere between 80 and 105 points.

4. If this is true, an important practical corollary will be that the different Non-Brahmin communities do not all require the same measure of protection and special favoured treatment. Some of the Non-Brahmin groups, it will be seen, are quite equal to the Brahmins in mental ability. The other groups in so far as their average is lower would need special treatment. But such treatment has to be more discriminate as amongst the Non-Brahmins themselves. Researches with a view to determining the exact average of each community have yet to be undertaken. The purpose of the present note will be served if it induces some to take up this very fruitful line of work.

M. V. GOPALASWAMY.

PUBLIC FINANCE AND DEVELOPMENT.—THE HYDERABAD SCHEME.

IN his article on "Public Finance and Development" in the July 1924 number of the *Indian Journal of Economics*, Dr. John Mathai, Professor of Indian Economics in the University of Madras, has explained the cumulative character of some of the difficulties being experienced on account of the new forward policy in industrial matters adopted by the British Indian Provinces. He observes that what would probably have been possible—the establishment and running by the Government of such industrial concerns as have special facilities in the locality concerned—under a bureaucracy which was continuous, cannot be expected to go on speedily or smoothly "in the whirlpool of democratic politics," unless some important changes are made in financial arrangements generally and in the budgetary system particularly. He discusses the question of setting up industrial banks and entrusting them with the responsibility of giving facilities for the development of industries, on lines recommended by the Holland Commission. This way of freeing the state from the new functions laid upon it by the new industrial policy is not immediately practicable: as Dr. Mathai says, the people of this country are yet familiar only with investment in land and in loans to local clients, and the little amount of banking that there is now has been developed on the model of British banking and so concentrates mostly on commercial finance, the characteristic of which is quick returns. There are other reasons also why industrial banks cannot reasonably be expected to undertake this function. Should an industrial concern be viewed as a pioneering one meant for ultimate transfer to private individuals or companies, or as a permanent state institution meant to remain such either on account of the magnitude of its cost, its importance to the people as a whole or the revenue needs of Government? What should be the distinguishing features in state policy with regard to a pioneering industry and with regard to a permanent state industry? How much contribution can be made by the state towards the encouragement of an industry in the shape of grants out of current revenues, and how far should an industry move on independent lines through loans? What kind of liability should the state accept in regard to loans necessary for furnishing the capital required by an industry? These and similar considerations must lead any thoughtful man to the same conclusion, namely, that in India in her

present conditions private enterprise cannot be expected to work successfully the new industrial policy, nor can it be entrusted with that national responsibility.

Dr. Mathai sounds a timely warning when he declares that if the state is not to fail in discharging its duties in connection with the forward industrial policy, certain reforms must be introduced in public finance, apart from those handicaps which are concomitant to state management of business concerns. He indicates, in the course of his article, a few of the drawbacks in the present classification of loans into productive, post-currency and dead weight loans, and pleads for definitely different treatment being given to capital expenditure from that given to service expenditure. A re-classification of heads of expenditure and therefore of receipts is very necessary in order to prepare for this. Two steps already taken in this direction of giving a special treatment to capital expenditures in some of the provinces are the introduction of commercial accounting into every business enterprise undertaken by the Government, and the maintenance of separate accounts, one for each such concern.

Still, the current financial organisation is not quite congenial to the furtherance of "development" work or even the undisturbed evolution of universities (which in India have necessarily to be state-financed institutions). Dr. Mathai refers to the practice in Great Britain by which supply service charges are distinguished from the consolidated fund. It is open to the cabinet to appropriate moneys out of the latter on a standing statutory sanction, while grants on account of the former must be voted by the House of Commons in Committee of Supply. A like distinction must be made in India between ordinary service charges and capital expenditure incurred by the state. Dr. Mathai suggests that while the former must continue to be subject to annual sanctions by the legislatures, the latter should be freed from the necessity of such annual sanctions—one standing statutory sanction being sufficient for empowering the administrative authorities to proceed with each individual undertaking through all its stages. In other words, the current system of annual grants and lapses must cease so far as business and special functions are concerned, which must necessarily be proceeded with on programmes ranging over a number of years. Otherwise there will arise a large number of unbusinesslike mal-adjustments. We are familiar with the pernicious practice which still persists in some parts of India, of the Public Works Department feverishly instructing its officers to spend *somehow* all the available amount in the last few weeks of February (or of June if the financial year begins with the month of July) lest such available amounts should lapse.* In almost all departments there is the practice, for the same reason, of making advance payments and showing receipts for

work to be done or things to be supplied later on. Sometimes miles of embankment and foundations for railway bridges across rivers have been abandoned on account of a change in policy, more often political than economic.

It is not British India only that, mainly as a result of the war, has freed itself from the shackles of a *laissez faire* policy in industrial matters. Indian States like Mysore and Hyderabad have been in the front rank, and the difficulties which British India is experiencing similarly have faced such governments. It is the object of this article to show that certain reforms introduced in the State of Hyderabad two years ago have by now proved quite successful in meeting the new situation of enlarged state functions. Nawab Hyder Nawaz Jung Bahadur (Mr. A. Hydari, formerly of the British Indian Financial Civil Service) was responsible for these reforms, which, if introduced into British India will, in the opinion of the writer of this article, fully meet the difficulties mentioned by Dr. Mathai and bring about several improvements. In view of the great importance of the reforms, a detailed review of them may not be out of place here.

A NEW CLASSIFICATION OF HEADS OF RECEIPTS AND EXPENDITURE.

The general statements issued by the Government of India on receipts and expenditure are (1) statement of revenue, (2) statement of expenditure charged to revenue, (3) statement of receipts and disbursements, and (4) abstract statement of receipts and disbursements. The presentation of the financial position is being made in Hyderabad, according to Mr. Hydari's new arrangements, in six statements: revenue, expenditure charged to revenue, capital and investment, debt heads, cash balance, and reduction of government debt. There are twenty items making up the first four statements; namely (a) principal heads of revenue, (b) interest and debt redemption, (c) mint, currency and exchange, (d) post office, (f) spending departments, (g) commercial and quasi-commercial departments, (h) capital outlay (l) investments, (m) government debt, (n) reserves, etc., and so on. The same number denotes the same department under both receipts and expenditure, whereas in British Indian budget statements the total number of items on the receipts side is 37 and that on the expenditure side is 49, and the same department is given different numbers under receipts and disbursements, as for instance No. 15 denotes posts and telegraphs on the receipts side while the same department is denoted by Nos. 17 and 18 on the expenditure side. Such an awkward classification is absent from the Hyderabad arrangement.

"Each class of receipts and expenditure is exhibited in its correct

proportion distinguishing extraordinary from ordinary and capital from service items. The heads have been arranged according to definite principles, and grouped according to the different functions of the state they serve." As instances, items F and G can be taken. F consists of spending departments; and the earnings of such departments not being of any tangible direct use to the general funds, their earnings are cancelled off respectively against their expenditure, and only the net expenditure incurred by the state is shown under statement B, there being a blank against head F under statement A. G consists of commercial departments; and their main feature being capital outlay, only that portion of the capital outlay which is meant to be met out of current revenues is shown under statement B, the rest of the capital expenditure being shown under statement C. Thus we have such a re-classification of budget heads as could enable the British Indian provinces to pursue different policies towards different items of expenditure.

AN EQUILIBRIUM ON RESERVES.

The assumption of the work of industrial finance in addition to its original province of public finance must mean to a state less financial stability on account of heavier liabilities. And if a state desires to strengthen itself for facing the risks involved in financing or running industries, certain safeguards must be created which can serve as buffers when needed. British India began the utilisation of such a safeguard long ago by the creation and maintenance of famine insurance funds, but progress was not made further in that line. But in Hyderabad now, a high degree of financial stability or normality has been ensured by the creation and maintenance of six reserves, each of them being annually added to from current revenues according to needs and convenience, and each of them serving as a safety-valve saving the state from excess accumulation of liability or risk. They are as follows:—

- (1) Osmania sicca (Hyderabad currency) stabilisation reserve (made up principally from profits on coinage).
- (2) Paper currency reserve (made up from issue of paper currency).
- (3) Debt redemption reserve (for redeeming loans on due dates).
- (4) Railway reserve (for redeeming the railway from the company).
- (5) Famine reserve (provision for future famines).
- (6) General reserve.

This ring of reserves is different from the British consolidated fund, but it has the advantage of giving more elbow room to the government while at the same time limiting its discretion in each direction. (The power

of inter-appropriation as among the reserves would be exercised only by the legislature in a democratic constitution).

DEPARTMENTALISATION.

Mr. Hydari has gone even further and has thought (his opinion has been amply verified in practice in Hyderabad during the last two years) that in the case of every department—excepting archaic and decaying ones—a certain larger amount of time must be given for each to work out its own schemes and plans, undisturbed by either whims of legislature or fancies of personalities. In Mr. Hydari's words, "the idea of the principle, briefly stated, is to fix the total grant of each department for a number of years and give it a large measure of autonomy within that grant, subject of course to such general restrictions as are necessary to avoid any undesirable developments or precedents, and subject also to a rigid and really effective audit." Departmentalisation is thus a contract arrangement between the finance department on the one hand (acting on behalf of Government) and each of the departments of Government on the other, the former undertaking to ensure the agreed annual grant for the contract period (in Hyderabad, the present contract period is 3 years) unless extraordinary occurrences like huge diminutions in revenue happen, the latter undertaking not to exceed the agreed grant over the contract period unless under special circumstances with the previous sanction of Government. Departmentalisation has thus brought about in Hyderabad not only a system of *separate accounts* but one of *separate finance*.

Some of the important features of this departmentalisation scheme are worth reference here. In order to enable the finance department to forecast income and expenditure over periods like three or four years at a stretch, the financial statistics of the Government over the previous 40-50 years must be compiled and analysed in handy form for frequent reference. Such a compilation of financial statistics has been made in Hyderabad, and it is with the help of these figures that grants are fixed for different departments. Rule I of the departmentalisation rules lays down that grants to the different departments must be fixed for three years, but empowers the government to curtail the grants in case the revenues diminish very much during the contract period on account of adverse phenomena, and to add to the grants in case the actual revenue receipts turn out to be more than estimated.

Spending departments—like education, medicine, sanitation—are given not only a guarantee of the minimum grant, not only a continuity of such grants over a number of years, but also a certain scope for expansion within the contract period in three ways. Even the original figures of

the contract, so far as these departments are concerned, are fixed on a more progressive scale than those of others; any increases in their receipts and the proceeds of any fees, cess, etc., that may be imposed lawfully for their service are allowed to be fully utilised by them; and in case of general revenue receipts exceeding estimates, special preference is intended to be given to these departments in additional allotments.

The treatment accorded to commercial and quasi-commercial departments is different. Rule IV says: "Out of its receipts, it (each such department) will have to defray all working expenses inclusive of depreciation charges, and to pay to Government whatever profits the circumstances of the department permit. If any of these departments is allowed further expansion of capital, 6 per cent interest shall be payable to Government for the additional capital sanctioned, and shall be the first charge on its gross receipts." Apparently, the policy underlying such a rule might look different from the forward policy current in British India, but it is really not so. This rule does not lay down any conditions as to the normal recurring grants of commercial departments, and provided a department is certain of earning at least 6 per cent on the outlay of capital, Government undertakes to supply any amount of capital. If a particular outlay takes a long time to begin yielding returns, the department concerned must find the interest amount out of the normal annual grant for its maintenance or out of the capital itself. And unless such rigid rules are laid down about rate of interest and the nature of the liabilities of the commercial departments, the great probability is (and actuality has been) that they develop into burdens on the general revenues. The main cause for the financial breakdown of the Russian Soviet has been this.

In actual working, departmentalisation has offered no difficulties. According to Rule IX, charges under salaries and allowances, contingencies and supplies are regulated by the scales, rules and regulations in force from time to time. That is, increases in expenditure on account of afflux of time (increments in salaries, increase of pensions, etc.) are normally met by the finance department. The Government of India have just adjusted, though after a tough fight, this principle with regard to railways. If only British Indian provinces adopt this principle in the management of their finances, not only will it mean more efficient administration, a more fruitful industrial policy, but a large amount of economy of time for the legislatures. Instead of each of the British Indian legislatures worrying itself annually about the various normal heads of expenditure, each such legislature can, with great profit to the country, utilise its time in evolving policy, for example in social matters —a very urgent need standing in the way of general advancement.

THE ECONOMIC ENVIRONMENT OF MYSORE SCHOOLBOYS.

THIS essay is the result of an economic survey of 294 students of D. Banumiah's Collegiate High School, Mysore—undertaken by us in August, 1923. We felt that every school where

“ . . . the future's fruitage looms still large and fine
Where tender tended youth just gains a gleam
Of truth, the work that waits, the blessed strife,
And little man is made or marred for life”

has not only an intellectual but an equally important economic atmosphere. Poverty, despite poets and philosophers, acts as a great deterrent force on the assimilation of culture. A starving student is the victim of many temptations and diseases; he is always underfed and overworked; he is often debt-ridden. The rich boy also suffers very often from the lack of an incentive to undergo pain as well as from overindulgence and evil company. The general effects of economic conditions on boys are usually accepted with such unquestioning submission that any one who ventures to consider them statistically might be included among those who argue about the equator or the Himalayas. Yet the verification of vaguely accepted hypotheses has its own value for correct thought.

D. Banumiah's Collegiate High School can well lay claim to the position of a representative school in Mysore City. It has not the special charm of a government institution; nor does it encourage a special community like the Brahmins: its Kunchitgars are only very few. It provides continued tuition from the lowest A. V. class to the University Entrance class. The special facilities in the Government Collegiate High School for tuition in Urdu, Tamil, Telugu and French as well as its unique character in providing a laboratory for the University Entrance class have attracted there certain communities and types of students who can seldom be found in other schools of the City. The students of D. Banumiah's School can be taken as tolerably representative of all economic classes and in fair proportion.

This claim has been further strengthened as a result of a subsidiary private inquiry carried on in the Maharaja's Collegiate High School itself. Eighty five students (42 of the U. E. class and 43 of the IV Form) were chosen as fairly representative of the school for the general purposes of comparison and the following tables are very instructive reading:—

I. GENERAL.

School	Average age	Average weight in lbs.	Percentage of Married students	Average size of family	Castes						Motherless %	Orphans %	
					Brahmin	Kshatriya	Vaisya	Other Hindus	Mahomedan	Christians			
Maharaja's	15.5	100	10.5	6.5	60	10.5	2.5	14	12	1	17.5	17.5	6
Banumiah's	16.2	97.6	10	7.0	77.5	2	2	17.5	1	29.5	20.5	5	

II. OCCUPATION OF PARENTS OR GUARDIANS

School	Govt. service	Merchant	Landlords	Artisans	Others
Maharaja's	49	6	16.5	6	22.5
Banumiah's	43	10.5	32	6	8.5

III. NATIVE PLACE.

School	Mysore City	Mysore State	Outside Mysore State
Maharaja's ..	45.5	46.5	8
Banumiah's ..	29.5	68	2.5

We find a large proportion of the City students and of the children of the aristocracy flocking to the Government institution and fewer outsiders and children of merchants and landlords. The students there are also younger and heavier.

The 294 students who handed over to us our printed questionnaires duly filled up are representative of all classes in the Collegiate and High School sections. The details given by 93 boys of the IV, 91 of the V and 73 of the VI Forms and by 37 students of the U.E. class form the raw material out of which this essay has been worked up. More or less the same percentage on the roll of each class has supplied us with the information required and thus we can confidently assert that whereas our school can be taken to represent in a largely economic sense the students of Mysore, the 294 whose conditions we have studied represent our school.

Now for our questionnaire. After the preliminary questions on class, age, caste and native place, we wanted the boys to give us the age of their parents or guardians along with the date of their parents' death, if any of them had died. The occupation of the parent and his monthly income as nearly as the student could fix it were also required. To

check and supplement this knowledge, further questions were prepared as to the kind, quantity and location of the family property, together with the number of earning and not-earning brothers, unmarried sisters and other male and female dependants upon the bread-winner of the family. Wherever possible, the approximate amount of the family debts was also supplied to us.

By a series of questions we have also striven to judge the physical condition of the boys. Apart from the attacks of some of the more important epidemics and wasting fevers, the opportunity was utilised for eliciting information regarding the eyes, ears and teeth of the boys. The weight, height and chest measurements of the boy; were also asked for while a statement as to their general condition of health was required.

One of our main purposes was to discern the relation between economic conditions, health and studies and therefore questions on the hours of study, the amount and nature of other work forced upon the boys by family circumstances and the method of spending holidays followed. We have tried to obtain detailed information regarding the rooms where the boys habitually read and the equipment of the student in the important matters of dress and books. We have also found out the number of times and the examinations in which the boys have failed during their school life.

Realising that information regarding destitute boys and the means by which they live, the games that school boys play, the frequency of their resort to theatres and cinema shows, the hobbies that they take delight in, the places of educational interest they have visited and of which they have distinct memories, the habits of thrift they have developed as evinced by their mutual indebtedness is intimately related to this study, we have, by careful questioning, collected much information regarding these matters. We have been informed how many have married and at what ages. We also thought fit, though many might consider it too early, to ask a question as to what profession the boy wished to take up.

Moffusil students were specially required to give us an estimate of their average monthly expenditure during the academic year in Mysore. They have told us how long they have been obliged to stay away from home for the sake of a school education, and the number and occasions of their visits home.

These questions were carefully explained by us in each class before the forms were distributed, and the doubts of many were solved by personal discussions. Special appeals were made for accuracy and sincerity in the answers, and the students responded splendidly. Making allowance, therefore, for a certain inevitable vagueness in the answers to

certain questions, we have every reason to believe that the forms were filled up by the boys to the best of their knowledge and can be relied on as very largely accurate.

The average age of the 294 boys examined was found to be 16·2; the ages given by them being 'age last birthday.' 5 of a year might be added to be more precise. Of these, it will be interesting to note, 6 boys are only 12 years old while 3 are 23 years of age. In the age-groups 15 and 16, there are 54 boys each.

Eighty-seven of the 294 were born in Mysore City itself while Nanjangud claims 11 and Chamarajnagar 6. The others give widely distributed villages throughout Mysore District and State, while only 7 were born outside Mysore, of whom 2 were born in Coorg and 2 in Coimbatore District. This is a sufficiently clear reflection of 'the characteristic immobility of the Indian' as well as of the difficulties of places which are not contiguous to any school in educating their children. It is also of some importance to note that whereas Mysore City has a total immigrant percentage from outside the district of 16%, our school shows 5% as the number of boys born outside Mysore District.

Of the 294 students, 228 are Brahmins, a figure apt to create doubtful satisfaction or dangerous misgivings. Of these again, 130 are Smartha Brahmins, 50 Sree Vaishnava and 48 Madhva. This is probably in fair keeping with the proportion of the castes in the city. Vokkaligas and Jains divide 28 between them, while the rest, except for 2 Christians, belong to various castes. There are 7 Kunchitigas—a fact to be remembered since the munificence of the founder seeks to attract them in larger numbers by the provision of free boarding and tuition.

Eighty-seven boys have lost their fathers. One very sad feature is that 38 of them lost them before they were 5 years old while 40 more were deprived of paternal affection before the age of 15. Looking at the amounts given by the boys as their family debts, we notice another depressing feature—that 53 out of the 87 deceased fathers have left a legacy of debt for their sons to pine under, a fact well worth pondering over. Fifty-eight boys have lost their mothers—24 before the age of 5 and 29 before 15. Fifteen are orphans.

Considering the castes of the fatherless children, we find a larger percentage of Brahmins among them. For a Brahmin boy who has lost his support a degree or a Secondary School Leaving Certificate is the panacea, whereas a larger percentage of others are able to earn earlier and better by other means. 31·6% of the total number of Brahmins are fatherless whereas the figure for boys belonging to other castes is 22·7. This is another reminder of the exaggerated importance attached to a literary education by this community and the struggles they undergo on

account of it. It also strengthens the desire to adapt even our High School course to the needs of those who seek to find in it a means of earning their daily bread.

From the data supplied regarding the age of parents, we unexpectedly arrived at some figures which may prove of interest. Making allowance for the difficulty felt by most boys in giving accurately such a piece of information, we found that 49 boys were born of child-mothers, i.e., when their mothers were 16 years old or less. When we examined the answers given to the 'health questions' by these 49, we found that only 14 enjoyed good health. Of the rest, 14 complained of occasional headache and fever, 8 of positive bad health from year's end to year's end, and 2 of stomach-ache and indigestion. We are conscious of the very serious limitations that must accompany any deduction from these figures as to the dangers of early marriage, and therefore we leave the figures as they are without any definite conclusion.

But our inquiry was directed more to economic conditions, and here the number of students was sufficiently large to admit of some confidence being placed on the conclusions. We found that the parents or guardians of 61 students were 'land owners' while those of 26 were engaged in the actual process of cultivation; 127 were in Government employ—66 in various services, 13 in the Palace, 13 as Shanbhogs of villages and 35 as schoolmasters. There were 10 purohits, and 8 temple servants. Twenty-five were engaged in trade, excluding 4 money lenders and 7 artisans. The most pathetic answers were found when 3 students described their parents' occupation as 'begging.' These figures are useful to gauge to what extent the desire for a school education has penetrated different ranks of people or, if existing, the extent to which that desire has been smothered by the costliness or inadequacy of our present educational system.

It is difficult to expect from boys an accurate estimate of the monthly income of their parents except in such cases as government service where a definite and fixed sum is disbursed every month. And we warned the boys not to create a stir among their parents by inquisitive questions on their income. But we have taken care to check each figure not merely by our personal knowledge of many cases but also with reference to the character of the occupations, and the quality, quantity and locality of their property. We found that 236 students have parents whose monthly income is Rs 50 and less. Below Rs. 20, there were 135 and below Rs. 40, 208 parents. Of the 58 guardians whose monthly income was above Rs. 50 only 3 had incomes over Rs. 500 and 30 above Rs. 100.

These figures assume added importance when studied along with the average size of families. One hundred and ninety-eight families are composed of 6 or more than 6 souls. 24, 25 and 27 families have 8, 9

and 10 members respectively, while 11 families have 15. The average strength of a family to which a student of our school belongs is 7.5,—a figure which is larger than the average for the whole State in the recent census by 2.5 members. Making allowance for the earning members of the family who contribute to the upkeep of their brothers or sisters, we can lay down that the monthly income has to be shared by 6 members of the family. The average monthly income of a student's family (leaving out of account 3 families with more than Rs. 1,000 income) is only Rs. 46 a month, giving an average of about Rs. 7-10-8 per member, *i.e.* a little more than 4 annas per day. This explains why our boys have most of them underfed physique and dull unintelligent faces where hunger can be seen gnawing from within.

Apart from monthly income, we inquired also into the nature, extent and location of the family property. Here too there was the difficulty, indeed the extreme delicacy of getting information through the boys, but yet we can guarantee that most of the details can be trusted. Twenty-two students have answered that they have no family property at all, while the rest have given not only the money value of their property but whether it is in the form of land (wet or dry), buildings, cash or jewels. All calculations on such figures must necessarily be rough but by careful checking of the valuations given, we found that on the average a family has about Rs. 9,195 of wealth. Leaving out of calculation 5 families who are worth more than a lakh of rupees, the average comes down to about Rs. 5,216 per family,—*i.e.* about Rs. 745 per head. Since 62 boys have lands of the value of Rs. 5,000 and above, that number can be taken to represent the boys who can 'go back to the soil.' Sixteen boys have lands worth less than Rs. 500 and 18, houses and jewels of the same or lower value.

In calculating the amount of wealth, we have been greatly hindered by the problem of debts. It was a highly objectionable topic for the boys to question their parents about, though essential to our enquiry. A special appeal had therefore to be made that the boys should rather leave the question unanswered if they did not possess unimpeachable proofs than disturb the domestic tranquillity of their parents. Eighty-five students have found it impossible to answer our question and of the remaining 209, 161 have given exact amounts while 48 have positively denied the existence of debts.

To test the reliability of these data, we thought of finding out the average ages of the boys who were sure of the matter. The average age of those who gave up the question was 15.2, while the figure for those who denied was 17.3 and those who have given amounts of debts, 16.5. These figures speak for themselves. Moreover, among the boys who have

given figures, 53 have lost their fathers and it may be presumed that they at least were compelled to take cognisance of their family debts as a result of the obligations of law.

An examination of the 209 answers reveals an average indebtedness per family of Rs. 1,405 or 18 per cent of the family property. Thus we see that, deducting debts, the average family to which a student of our school belongs has only got Rs. 3,811 in the form of land, buildings, cash and jewels, *i.e.* about Rs. 544 per head. We may note while passing, the consequent incapacity of many to start businesses of any considerable size and the very poor equipment afforded by Rs. 500 to run the race of life under the competitive conditions of to-day.

One very important part of our work was to divide the 294 boys into certain recognisable classes according to their economic condition. For this purpose no cut and dried rule would be satisfactory. We calculated as accurately as the answers permitted, the monthly income of the family from *all* sources, provided for immediate contingencies, such as the marriage of unmarried sisters, and dividing the balance equally between all the non-earning dependants of the parent or guardian, we arrived at the sum which the student can fairly expect his parent to spend upon him for a tolerably long period in the future. If this "Spending Capacity" was above Rs. 100 a month, we included the student in the first class, between 50 and 100 in the second, between 25 and 50 in the third, between 15 and 25 in the fourth, between 5 and 15 in the fifth and below 5 rupees in the sixth economic class. Objection might be taken to the large number of classes but the ability to spend a few more rupees has such immense influence on the physical and intellectual growth of young men that we thought it advisable to differentiate between such amounts. An equal per capita division of legitimate monthly income from property free from all incumbrances among all the people who are really dependent on it is the basis for this classification.

We found the 294 students distributed as below:—

Class	Spending capacity	No.	Percentage of total
I	Rs. 100 and above	7	2·4
II	„ 50—100	18	6·1
III	„ 25—50	32	10·8
IV	„ 15—25	40	13·6
V	„ 5—15	97	33·0
VI	below Rs. 5	100	34·1
Total		294	100·0

One use to which we applied these economic classes was to find the

relation between poverty and health. The following figures giving the percentages of the students who complained of bad health or who boasted of good health in each economic class are very instructive:—

Class	Good health	Bad health
I	.. 86	.. 14
II	.. 50	.. 50
III	.. 53	.. 47
IV	.. 60	.. 40
V	.. 46	.. 54
VI	.. 46	.. 54

So long as our children are living under this incubus of crushing poverty, all physical culture must necessarily be only partially successful.

This is perhaps the most opportune place to consider the influence on the general health of the boys of another potent factor—exercise. We found here remarkable figures to illustrate the value of some form of physical culture, though as a result of poverty many boys are not able to benefit by it persistently and completely. Of the 159 boys who take some kind of exercise regularly, only 17 complain of bad health, whereas out of the 135 who confess that they take no part in games, only 29 are satisfied with their health! This is indeed an ounce of illustration worth more than a ton of theory.

Sixty-four boys have been attacked by small-pox, while all have been vaccinated, 15 by plague and 6 by cholera. Seven boys suffer from fits while 6 complain of defective hearing. Twenty-nine have defective eyes and their average age is 15·8 and 11 of these complain also of general ill-health. Twenty-two boys have, on their own statement, bad teeth and 10 of these again suffer from digestive and lung troubles. These figures eloquently plead for the adoption of medical examination of school children, at least for the discovery and cure of some major physical defects affecting school life. Of the 29 having bad eyes, 20 use kerosene oil lights and 9 electric lights, but no inference can be drawn on such slender figures since the boys cannot be said to use either for a sufficiently long time for reading purposes.

Great difficulties were experienced by the boys in giving us their height and weight because the school has no appliances for finding them out. In spite of the fact that we weighed some 30 boys with a borrowed spring balance and measured some more in the school itself, only 141 boys answered questions relating to these important details. The average height of these 141—of all ages and of all classes—comes to 4 feet 11·3 inches, there being 60 students of 5 feet height and less. The average weight according to height is given below, opportunity being also taken to represent the averages of those who take exercise and those who do not. The differences in weight are clearly marked. The total average for those who

take no part in games is 92.9 lbs. while those who do have an average weight of 102.2 lbs.

The deficiency in weight becomes painfully emphasised when we compare the "morphological co-efficients" of our boys with those given by Professor Jules Amar, the distinguished physiologist of France, as the minima necessary to keep the organism in a fit condition of resistance. The weight of our boys is throughout far below Professor Amar's minimum for the height concerned.

Further, there is a striking correspondence between weight and economic conditions. At the age of 13, the boys belonging to the fifth and sixth economic classes have an average weight of 71.75 lbs., while those of the remaining four classes weigh 78 lbs; at the age of 18, the figures are 107.1 and 114.2; at the age of 20, 107.6 and 113.6.

Of the 294 boys, it has been already noted that only 159 take any part in the games arranged by the school or other organisations. Most of these take part in games under a very great strain, since they do not generally take a substantial tiffin in the interval. Juvenile enthusiasm resists the admonitions of hunger. Only 48 per cent of the boys belonging to the fifth and sixth economic classes take a tolerably active part in games, while 71 per cent of the first class and 66 per cent of the second class are able to benefit by games. The most popular game is football—seven teams being supplied regularly with balls from the school, besides other teams maintained by private agencies. Badminton and volley-ball are also played, while a few play cricket. One hundred and thirty-six boys can swim, and of these 42 hail from river-side villages and towns.

We acquired a good deal of information regarding the conveniences commanded by the high school student for prosecuting his studies. Taking into consideration the details given regarding room-mates, furniture, windows, the size and location of the room and its distance from the school, we classified rooms into three classes according as they were good, tolerable and bad. On considering the quality of rooms in connection with the poverty of the boys, we found an appalling coincidence of poverty and slum life.

Economic class		Good	Tolerable	Ba
I	5	2
II	10	5
III	12	12
IV	6	23
V	8	48
VI	12	29
				59

One hundred and nineteen of the 294 have not got all their text-books with them or under their control. Of these 91 students belong to

the fifth and sixth economic classes, and the remaining 28 have careless parents who take no constant interest in the studies of their boys.

Poverty is bearable; it is the string of being known to be poor that pains most of our boys, who, like Phatik Chakravarti in Tagore's story, are susceptible to the hailstorms of ridicule and contempt. We therefore requested the boys to give us a list of the articles of dress which they possessed and, taking 2 coats, 2 or 3 shirts and 3 or 4 other garments as the minimum necessary for clothing a self-respecting schoolboy, we proceeded to classify our 294 boys into three classes—those possessing more than the minimum, A; those possessing less, C; and those who are just on the minimum, B. We found that 109 students were in class B leaving 84 in C and 71 in A. It is comfortable to forget but salutary to remember that, in the words of H. G. Wells "these underfed, underclothed, undersized children are also the backward children; they grow up through a darkened joyless childhood into a grey perplexing hopeless world that beats them down at last, after servility and toil, after crime it may be and despair, to death."

We were told by 13 boys that they had to cook at home—pretty regularly; 109 complained of too much household work (a complaint probably not entirely due to rebellious tendencies against the home); 4 had to teach their younger brothers to the prejudice of their own studies; 4 had to spend too much time in collecting donations from 'patrons'; 7 attended to shops and lands; 5 had to look after babies at home; while 5 boys complained of being compelled to worship the household gods and one boy looked after cattle. Some of these instances represent genuine cases of a very general tragedy, when calm and collected reading is denied to the young mind craving for freedom and quiet.

In spite of these difficulties, the boys gave rather large figures as to their 'hours of study.' Seventy-one students, 65 of whom were in the IV Form, read for 3 hours and less while 146 read between 3 and 5 hours a day. Nine were struggling with their books for upwards of 8 hours a day! No student applied his vacations to the study of anything interesting or profitable except 18 students who helped their parents in tilling lands and 5 in priestly functions.

The constant peepings of the wolf through the study window scare away all peace of mind, and we found that this was actually happening in the case of 29 students among the 294. Of these 2 subsisted on begging and 27 depended on the charity of gentlemen who fed them one day in the week. This system of *vāram* involves long walks, longer delays and very often cold meals and colder serving. The student depending on its nicely adjusted equilibrium is ever suspicious of his next meal since a transfer or a 'small family breeze' may upset his

time-table. Five other students are feeding in the Sree Parakala Mutt and 7 in the Anathalaya. Twenty-five students of the 294 were starving between the two principal meals of the day. Fifty-one were messing in hotels of which the less said the better.

Failure to pass examinations with its attendant ignominy is another trouble. Of this bitter fruit 126 of the 294 have tasted once, 19 twice, 1 thrice and 2 so many as 5 times in their career. What misery of mental breakdown do these figures represent! The public examinations are, of course, the greatest tormentors. Seventy-three boys have met with reverses in the L. S. Examination, 16 in the S. S. L. C. and 5 in U. E. Examination.

Twenty-nine students have married, and their average age is 17.06. This is a fairly low number and high average, marking a definite growth of the sense of responsibility.

The boys were found to possess a sufficiently good idea of the value of libraries and of general reading. One hundred and thirty-nine students were regularly using the Public Library for looking into periodicals, while 16 made use of private libraries also. The School library and reading room are used by 191 students. Only 17 boys confess themselves 'guilty' of not using any library anywhere.

The students themselves seem to possess a considerable number of good general books. One hundred and ninety-six boys have among them 1,822 Kannada books, an average of more than 9 books each. Two hundred and thirteen boys have got among them 2,958 English books, averaging about the same number per boy. Taken along with the widespread use of library facilities, these numbers are satisfactory enough.

A perusal of the answers to questions on profitable hobbies is a source of greater satisfaction. Fourteen boys have learnt typewriting in the morning or evening classes being held in many institutions of the city, 5 shorthand and 2 accountancy; and many of these are intending to stop their studies very soon with a view to earning as early as possible. A tolerable knowledge of music is claimed by 18 boys, while the 'tabala,' 'veena' and 'flute' have each one devoted disciple. Fourteen boys know some of the elements of the technique of painting, and photography has 3 votaries with their kodaks. Twenty-seven boys can make net-bags, while others are conversant with book-binding, rubber-stamp making, composing, watch, cycle and harmonium repairing, regutting rackets, carpentry, blanket manufacture or tailoring. It is a sad feature of our school system to-day that much of the æsthetic potentiality underlying all this genuine love for some good and beautiful work is smothered under the heels of its iron curricula. Schools are, in this respect, worse than prisons. *

Many places of educational interest are scattered within easy reach

of Mysore City, and most of the boys have visited them. No student, for example, has missed the Krishnarajasagara Dam or the historic ruins of Seringapatam. The temples of Belur and Halebid, Somanathpura and Sravanabelgola have all been visited by about 20 students each. The Sivasamudram Falls have attracted 40 boys, while distant Gersoppa has been visited only by 2. The same number have gone to Talkad and the Baba Budan Hills, while the Biligiri Rangan Hills have been able to attract 6 more. The Kolar Gold Fields and the Bhadravathi Iron Works have been visited by 17 and 5 respectively. Places of pilgrimage lying outside Mysore Province have been visited by a large number of students, especially places like Srirangam, Thirupathi and Conjeevaram. Two students have gone to Benares and two to Rameshwaram. Eighteen of the 294 have been to Madras, 8 to Bombay and 4 to Poona. Six have admired the magnificent ruins of the Vijayanagar Empire at Hampi.

During the three months after the reopening of the school after the summer holidays (June 8 to August 8) we found that 156 boys resorted to cinema theatres for an average of 1.7 shows a month. The poorest class of boys see the smallest number of shows—1.2 per month. Fifty per cent of the students attended dramatic performances during the period—a large number considering the greater cost and the sleeplessness involved—the average number being 1.5 shows a month. Fifty-nine boys confess to playing cards pretty regularly, and their average age is 17.4.

The indebtedness of students follows naturally from these and other figures. Students living with their parents are naturally less in debt than moffussil students living without effective and constant control. Among the 72 students who have contracted debts on their own account, 20 live at home in Mysore. The total amount of their debt is Rs. 82-13-0, an average of Rs. 4-2-6 per head. Of these again, those who have lost their fathers are deeper in debt than the others. Thirteen boys with fathers have a total debt of Rs. 31-5-0, while 7 boys without them have Rs. 51-8-0! Among boys from the moffussil also the existence of the father is a good controlling influence. For example, 34 boys with fathers have a debt at Rs. 186-0-0, while 18 boys who are supplied with money by others have run into a debt of Rs. 232-12-0, an average of nearly Rs. 13 in 3 months of school life. These figures disclose a certain lack of self-control and good sense in the boys to which attention has to be paid.

We received very interesting answers to our question on the professions that the boys desired to follow later—interesting for a student of juvenile psychology.* Sixty-three boys did not give any answer at all, while 10 answered 'not yet fixed' or 'do not know.' It is an important indication

of the spirit of the times that 15 boys wrote 'any independent profession,' while one wrote 'that profession which does not enslave me under one, *i.e.* some officership'! One young fellow of the IV Form desired the principalship of the Maharaja's College. Others were attracted by the dignity and influence of the Traffic Manager, the Police Commissioner, and the Chief Auditor; three boys have been captivated by the Railway Station Master, and one by the Railway Guard. Three students wanted to spend their lives as 'authors and men of letters.' One wanted to be 'the greatest man of the world,' while another was content to remain 'a philosopher' throughout his life. The following is a list of professions desired, with the percentage of students yearning after them:—

		Percentage of total number of students
'Government Service' (unspecified)	..	23·4
'Business,' Trade	..	13·8
Teacher	..	13·3
Engineer	..	10·4
Lawyer	..	8·7
Agriculturist	..	7·4
Doctor	..	6·9
'Anything independent'	..	6·5
Undecided	..	4·3
Miscellaneous	..	2·7
'Artist'—painting, etc...	..	2·6

We also found that 20·8 per cent of these desires were moulded by the occupations of the boys' parents or guardians. This imitative tendency was found largest in Agriculture, where out of 17 who desired it, 13 were the sons of agriculturists. As regards the engineering and teaching professions also the desires are similarly influenced—12 boys out of the 32 being sons or relatives of engineers and 8 boys out of the 31, those of teachers. One hundred and sixty-five boys have parents now living outside the City, and 30 of these 165 have been living independently in Mysore for a period of more than 6 years. On the other hand, 25 students had only come to Mysore in June since they had to search for a high school far away from home. Thirty-four students have been away from home for more than a year, 15 for more than 2 years, 26 for 3 years, 23 for 4 and 12 for a little over 5 years. All these figures represent a large amount of anxious separation from home, relieved only by occasional visits during the holidays. We found that 39 of these boys went home only once in the year during the summer vacation, while 52 were visiting their native homes twice a year—during the summer and during the Christmas holidays, since the Dasara holi-

days can be spent with more elation in Mysore than anywhere else. The average monthly expense of these moffussil boys in Mysore comes to about Rs. 10-3-0 a month; 62 boys spend Rs. 5 and even less while 30 spend Rs. 15 and even more.

Our investigation concludes here. We hope that in these pages a useful glimpse has been given of the economic environment that surrounds the Mysore schoolboy, and that some thoughts have been awakened in the mind of the reader that will help towards the solution of some of the problems suggested by the conclusions drawn by us. Since ours is a pioneer attempt, many faults and deficiencies are inevitable, especially in an inquiry concerning such vital influences as go to make the modern schoolboy. It is therefore our very pleasant duty to invite sympathetic criticism on the questions and the methods of procedure followed by us. A still more pleasant task is the distribution of thanks to all those who have encouraged and materially helped our investigation. Thanks in a large measure are due to Mr. S. Sivaraman, the late Headmaster of our School and Mr. M. H. Krishna Aiyengar of the Maharaja's Collegiate High School. Nor should we forget to thank the boys, who responded readily and intelligently to our appeal for accurate information.

N. KASTURI.

M. SESHAGIRI RAO.

PARALOGISMS OF PURE REASON—KANT AND SANKARA.

THE critique of Rational Psychology receives with Kant the title, "On the Paralogisms of Pure Reason," because it is to be shown that the main principles of that science rest upon as many paralogisms. The aim of Rational Psychology is to penetrate to the source of consciousness. It endeavours to ascertain the inner constitution of the subject of the psychological states and to discover the relations subsisting between the subject and the object. In a word Rational Psychology seeks to learn what may be gathered by the light of reason regarding the nature, origin and destiny of the human soul. We shall presently see how it does this.

All the categories presuppose the unity of self-consciousness and this unity is presupposed in all experience. This unity is not a specific conception like substance and causality but is only a formal and general idea of the unity of consciousness. Rational Psychology endeavours to build up the doctrine of the soul upon the single proposition "I think." If it is to be rational it should exclude all empirical elements. Since the continuous unity of consciousness is essentially presupposed in all experience, the Rational Psychologists supposed that the thinking subject is independent of experience and that its nature can be determined purely by a consideration of it as self-consciousness. Since they conceived the "I" as a subject or substance, they first brought it under the category of substance, then quality, quantity and relation. Thus they get four propositions:—(1) The soul is a substance, (2) It is simple, (3) It is a unity, (4) It is in relation to possible objects in space.

Kant says that Rational Psychology rests upon an illusion and falls into four paralogisms corresponding to the above four propositions. A paralogism arises out of reason confusing its own idea of an absolutely complete subject with a real object corresponding to that idea. All the inferences of Rational Psychologists assume that the thinking subject can be determined as an object by the application of categories to it. From the unity of self-consciousness which is the general form of the activity of consciousness, the existence of a non-composite substance is inferred. A substance is inferred from the synthesis. The transcendental self-consciousness, or pure ego, which accompanies and connects my representations and the subject of all my judgments, is the presupposition of all my experience. But as such it can never become an object of knowledge. It is a simple empty idea. As a subject of all experience it can never become an object to which the categories can be applied. What it is by itself

cannot possibly be known because it is never given apart from experience. To know myself as an object, I must perceive it and this perception presupposes self-consciousness. So the consciousness of myself as a determining subject does not yield the consciousness of myself as an object. Our eyes cannot see themselves. Therefore Rational Psychology must be a failure. The unity of self-consciousness only shows that so long as there is consciousness of objects there is consciousness of self. Any Rational Psychology inferring from this that there is a permanent indestructible thinking substance must be wrong.

In truth, Rational Psychology is in fundamental contradiction with the principles of knowledge. It assumes that we can show *a priori* that all thinking beings are simple substances. The claim of Rational Psychology rests upon the ambiguity of the middle term and therefore upon a *quaternio terminorum*.

Major Premise.—That which can be thought of only as subject must exist as subject and therefore substance.

Minor Premise.—A thinking being from its very nature can be thought of only as subject.

Conclusion.—Therefore, a thinking being can exist only as subject, that is, as substance.

Here while the subject in the major premise means both the thinking subject and an independent subject or substance, it means only a pure thinking subject in the minor premise. Moreover it is assumed that, while the self can only be thought of as subject, never as object, it can exist independently of every object.

To sum up, the claim of Rational Psychology to rank as a science must be denied to it since that claim is based upon a misunderstanding. “The unity of consciousness,” says Kant, “which is the supreme unity of the categories, is simply confused with the perception of the subject as object, and hence it is supposed that the category of substance can be legitimately applied to the thinking subject.” The thinking subject cannot be determined by the categories. It knows the categories but it does not know itself through the categories. Thus the illusion under which Rational Psychology is labouring is obvious. It falsely assumes that we can be conscious of our own existence apart from experience. It confuses the mere possibility of self-consciousness with the imaginary existence of a transcendental subject while we have in thought only the formal unity of self-consciousness presupposed in all experience.

The foregoing is Kant’s criticism of the Paralogisms of Pure Reason. Even Sankara protests against the same likewise in his commentary of the Brahma Sutras. Before attempting to give an exposition of Sankara’s protest against the paralogisms, I shall quote some passages

from the original, as translated by Professor Thibaut, to lead us to a right understanding of it. Sankara says, "The self is not contingent in the case of any person; for it is self evident." "The self is not established by proofs of the existence of the self." "Perception and other proofs, which are employed in the case of things not proved, but to be proved, are founded on it." "No one assumes such things as ether and the like as self-evident and needing no proof." "But the self, being itself the condition of employing proofs to such other things, is accepted as self-evident even before the employment of proofs and such other things." "For it is only a contingent object that can be denied and not that which is self-subsistent." "It is the very essence of him who would deny it." "Fire cannot reject its own warmth." "Let us take an example. It is I who know what is present. It is I who know what is past and what is more remotely past. It is I who shall know the future and what is more remotely future. In these cases, though the object of knowledge differs according as it is present, past or future, the knowing subject does not change, for it is always present."

The immediately foregoing quotations are pregnant with meaning. By the primary or fundamental character of self-consciousness is meant that it is the basis of all other kinds of knowledge and therefore not dependent on any of them. As it is the self that perceives and reasons, its existence is logically prior to perception and reasonings. The necessary and self-evident character of self-consciousness is also clear, and it cannot be expressed more clearly than in Sankara's words, "it is not possible to deny such a reality, for it is the very essence of him who would deny it." Descartes, the father of Modern European Philosophy, found himself capable, at the beginning of the course of philosophical reconstruction started by him, of doubting every thing, God and the whole world, but incapable of doubting his own self; for even the act of doubting it implies its existence. Doubt itself implies the doubter, and so Descartes expressed the fundamental and self-evident character of self-consciousness in the well-known proposition: "*Cogito ergo sum.*" All objects of knowledge and thought appear related to us as known and thought of. It seems that, in much of my knowing and thinking, I forget myself and that it is only in reflective moods that I am aware of myself as a knower and thinker. But this is really based on a misconception. It is indeed true that in unreflective moods, the proposition "I know" or "I think" is not distinctly before my mind but the fact of my being a subject is, in a more or less indistinct form, present to my mind in every act of knowing and thinking; for unless it were so, unless I knew myself related as subject to every object known by me, I could not, after the act of knowing, bring myself into relation to it in my reflective mood. I can remember

only that which I knew ; I can recognise only that which I cognised. And so, if for instance I had really forgotten myself when I heard yesterday's lecture, I could not now remember, as I actually do, that I did hear it. The very fact that I now remember myself as the hearer of the lecture shows that I knew myself then as its hearer. All knowledge, therefore, contains, either explicitly or implicitly, self-knowledge, the knowledge of the self as the subject or the knower. This self-knowledge may be associated with various wrong notions about the nature of the self ; but that does not make the fundamental knowledge of the self as the knowing principle any the less real. In ignorant minds the real nature of the self may be concealed, as it were, under various objects wrongly identified with it, as the real nature of the sword is hidden by the sheath that encloses it. But that does not invalidate the original *atmapratyaya* or self-consciousness that accompanies all these mistaken identifications. Vedantic philosophers have taken the trouble of enumerating the various gross and subtle objects with which, at successive stages of our spiritual progress, we identify the self, and have also taught us the way to discover the error of such ignorant identifications. At the lowest stage of spiritual progress, they say, we naturally identify the self with the gross body, the organism which is built up with our food. This they call *Annamaya Kosha*, the nutrimental or material sheath. At the next higher stage, we identify the self with the vital principle, the principle that lies at the root of our respiration, digestion, etc. They call this *Pranamaya Kosha* or the vital sheath. At the third stage, we consider our passing ideas and sensations or a conceived substratum of these as ourself. This they call *Manomaya Kosha*, the sensuous or mental sheath. At the next stage, we bring all sensations under general ideas and conceive of an organ, *Buddhi* or understanding as the seat of our ideas. This they call *Vignanamaya Kosha*, the intellectual sheath. At the fifth and last stage we identify the self with the pleasurable emotions. This is called *Anandamaya Kosha*, the beatific sheath. At each higher stage, we identify the self with a subtler and subtler object and ascribe to it a higher and higher function. And each higher sheath, because subtler, is therefore a truer representation of the self than the lower. But as each of them is an object characterised by being known and is not self-knowing, none represents the true self, which is a self-knowing subject and not the object of knowledge. Though we identify self with others, yet we refer every piece of knowledge to a knowing principle constituting our very self.

The foregoing exposition clearly shows us that Sankara protests against the Paralogisms of Pure Reason in the same sense as Kant. Is not Shankara himself while vehemently protesting against the paralogisms, committing the paralogism, when he talks of knowing Brahman ? This

question again leads us to rethink both Kant and Sankara in the aspect of their respective theories of perception. For Kant knowledge is not possible without a manifold, without categories of the understanding and forms of intuition, and it has been shown already how the self on his theory of knowledge cannot be known, for to know is to have percepts. The self is not perceived but is seen through the glasses of perception through the time form as a succession of states. But though the self cannot be known it can be thought. Indeed Kant's whole theory of knowledge is based on the thought of such an ego. Now let us turn to Sankara.

Sankara, in agreement with Kant, protests against the paralogisms of pure reason. But having said like Kant that the self cannot be proved to be a substance, he talks of knowing Atman or Brahman. How could we know that which cannot be perceived? This seems to be a contradiction. To understand whether this is really so, let us turn to his theory of perception. Vedanta Desikar in his *Sree Basha* says, "Sankhya, Sangatha, Charvaka, Sankarath, Sankarodayaha." That is to say, Sankara's philosophy is a product of the Sankhya philosophy, Sangatha or Madhyamika's philosophy of the Buddhist school, Charvaka philosophy and Sankara's own intelligence. Afterwards he says that he got his theory of perception from the Sankhyas, his theory of Maya from the doctrine of Sunya of the Buddhists, and the inadequacy of the Sruti and the ritual doctrines claiming as Pramanas to higher realities from the Charvakas; and the rest of his philosophy is the product of his own intelligence. So his theory of perception is similar to the Sankhya theory of perception.

Sankhya philosophy is fundamentally dualistic—prakriti on the one hand and purusha on the other. These too are independent realities. The senses, according to the Sankhyas, looking outward receive impressions of physical things, because they correspond to the things. "As the seniors of the village collect taxes from the householders and hand them over to the governor of the district, who again remits them to the treasurer, and the treasurer to the king, thus do the outer senses, when they perceive anything, hand it on to the inner sense, the Manas, the organ which determines what there is, and then it hands it over to Ahamkara and to the Buddhi, the Supreme Lord." Buddhi discriminates the impressions of the senses and acts upon them. When the external world acts upon Buddhi through the senses, the Buddhi takes the exact form of the object sensed. Buddhi too is matter according to the Sankhyas, and this is an impression which one material object leaves upon another, namely Buddhi. If we press our arm on sand, the impression of our palm is left on the sand. This form taken by Buddhi is reflected as in a mirror in the soul and then reflected on the Buddhi as the "I." Here Buddhi serves

as a mirror having on one side the impression of prakriti left over it, that is, the exact form of the object sensed; and on the other side having the reflection of the transcendental "I." The unrealised soul, being unable to distinguish between these two reflections, combines them into "I see this or that."

Sankara's theory of perception is similar to that of the Sankhyas with this difference. For him the world is not real but the product of Maya, which is real for ignorant souls. For him too the Maya world creates an impression on Buddhi, and this form taken by Buddhi is reflected as in a mirror in the soul and then reflected on the Buddhi as "I." As Sankara says, ignorant men transfer the qualities of the Vishaya to the empirical subject and the empirical subject thinks that he is the author of it. "As one is accustomed, when it goes ill or well with his son or wife, and the like, to say, 'it goes ill or well with me,' and thus transfers the qualities of the outer things to the Atman, in just the same way he transfers the qualities of the body when he says, 'I am fat,' 'I am thin,' etc., and similarly the qualities of the sense organs when he says, 'I am blind, dumb,' and similarly the qualities of the inner organ or manas, desire, wish and the like. Thus also he transfers the subject, presenting the 'I' to the inner soul, present solely as witness of the personal tendencies and conversely, the witness of all, the inner soul, to the inner organ and the rest." Thus the soul becomes an object of perception of the 'I,' not a witness but the doer, that is, the individual soul endowed with objective qualities. These things are all done, according to Sankara, by unreleased souls, by the souls who have not reached the knowledge of Atman. "All empiric action is true, so long as the knowledge of the soul is not reached, just as the actions in dream, before awakening occurs. As long in fact as the knowledge of unity with the true self is not reached, one has not a consciousness of the unreality of the procedure connected with standards and objects of knowledge and fruits of works, but every creature, under the designation of 'I' and 'mine,' takes more transformations of the self and for the characteristics of the self, and on the other hand, leaves out of consideration their original Brahman—selfhood; therefore, before the consciousness of the identity of Brahman awakes, all worldly and Vedic actions are justified;" and for Sankara these are not justified in the eyes of the released soul.

Having said all this, Sankara says that Atman is the only reality and it must be known. It has already been noted that Sankara, like Kant, said that we cannot *know* Brahman, for to know is to have percepts. What, then, does Sankara mean by saying that we should know Atman? How is it possible to know that which cannot be perceived? Does it not seem to be a contradiction? We shall examine this closely.

As we have said, for Sankara Atman is the only reality. The world is Maya. So we shall see what will be the nature of the released soul. For a released soul the only reality is Atman. For him the means of knowledge, perception and the ritual books of doctrine are limited to the province of ignorance. "Because without the delusion that the 'I' and the 'mine' consist in the body, sense organs and the like, no knower can exist and consequently a use of the means of knowledge is not possible. For without calling in the aid of sense organs, there can be no perception, but the action of the sense organs is not possible without transferring the being of the self to the body, and without all this taking place, no knowledge is possible for the soul, which is independent of embodied existence. But without the action of knowing, no knowing is possible. Consequently, the means of knowledge, perception and the rest belong to the province of ignorance." So in as much as there is no scope for a released soul to perceive or act, there is no empirical ego and Buddhi is unreal. The Naisargika Adhyasa (the inborn transference of Vishaya and Vishayin) is not possible in his case. Since Atman is the only reality for him, it can never become an object. It is knowledge and not knowing. The whole tenet of Sankara is to negate this world of Maya and thus negate this empirical ego. The aim of Vedanta, according to Sankara, is to clear men of ignorance.

In what sense, then, does Sankara say that Atman can be known? For Kant the only channel of knowledge is perception. For him the soul cannot be perceived, and so he says that it cannot be known. He postulates it as thinkable on ethical grounds. But for Sankara, there is another channel of knowledge, namely, Intuition. He says Atman can be known by Intuition. It is, according to him, the nearest and the most exactly apprehended reality. If Sankara had said that it can be known *intellectually*, he would have committed the paralogism; but he, with Kant, says it is impossible to know Atman intellectually. It is even absurd to say that it can be known intellectually or by perception, for, according to Sankara, there is no other reality to which Atman can be the object.

To sum up, Sankara says that in the Vyāvahārika world ignorant men are justified in transferring the qualities of the object to the subject. He also says that for them the soul is an object of perception in as much as they transfer the qualities of another to it. In this sense the unreleased souls are committing the paralogisms of pure reason. We can even grant that Sankara, before he knew the real nature of Atman, must have committed paralogisms of pure reason. But the whole of Sankara's philosophy is an emphatic protest against this avidya, and, in fact, his whole philosophy is a means to be free from this avidya. The Sankara of the

commentary on Braharasutra of *Sree Bashya*, and the Sankara of Advaita philosophy cannot in the nature of things commit the paralogisms of pure reason, for he is clear from the avidya haunting the unreleased souls. To attribute the charge of committing the paralogisms of pure reason to Sankara is due to ignorance or avidya, whose removal is the sole object of Sankara's philosophy.

S. THIRUMALAI.

REVIEWS.

A Political and Administrative History of India. (1757-1920). By K. H. KAMDAK, M.A., Professor of History, the College, Baroda. M. C. KOTHARI, Baroda. Rs. 2-8-0.

THE book is in two parts. Part I is a summary of the author's earlier book on Indian History 1757-1858, the notice of which in this journal (July 1923) is cited by the writer in the present work.

Part II deals with the constitutional and administrative growth of British India from the close of the Mutiny to the beginnings of responsible Government. The author has brought out the bearing of foreign policy on the internal political situation. He has passed in review the administration of every viceroy and sought to assess his contribution to the development of Indian polity. It would have been better if he had sketched the history of each political institution.

The author's comments are in general suggestive rather than exhaustive. But one would wish that he were more critical wherever he tries to be exhaustive, and that he had exercised a certain restraint and moderation in language. Instances in point are not far to seek. Max Müller is said to have observed, "that this country was the home of all that was worth knowing by man." "Professor —— throws a new light on every Indian institution in his works." (p. 182.) The author has fairly exhaustive notices of recent researches in Indian history, but does less than justice to European writers and to south Indian contributions.

S. V. V.

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Annals of the Bhandarkar Institute, Vol. V, Part II (1924).

THE high level of excellence of the journal is maintained in this number. Prof. Belvalkar has a long article on *Madhava Vritti* in which he discusses the relation of Mādhab to Paramārtha and, to Gaudapāda and places Isvara Krishna in the 1st or 2nd century A. D. Other articles of interest are those of Dr. Modi on the social life of the Iranians as presented by the Avesta, of Prof. Kaviraya on the doctrine of Prathibhā, [?] and on two inscriptions in the Rajkot Museum by the Curator.

S. V. V.

The Upanishads, with English Translation and Notes., Vol. I. Edited by H. R. BHAGAVAT, B.A. Ashtekar & Co., Poona. Rs. 2-8-0.

THERE are several scholarly translations of the chief *Upanishads* already published in English. The present attempt, as is indicated in the preface, does not vie with any of them either in method or in aim. Its declared purpose is to assist the student in making his first acquaintance with *Upanishadic* literature ; and for this purpose the book is very well suited indeed. Of the twelve or thirteen classical *Upanishads* practically all the shorter ones are translated here and the reader will greatly appreciate the inclusion of the Sanskrit text, for it saves him from the distraction of constant reference to another book. The rendering is simple and correct ; and the notes that are occasionally added serve to elucidate vague or difficult points.

M. H.

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The Government of France. By JOSEPH BARTHELEMY. Authorised translation by J. BAYARD MORRIS.

WITHIN the compass of a single volume the book under review gives a complete account of the present system of government in France and of the alterations gradually introduced in the constitution of 1875. At the present day France is a centralized republic under one head. Universal suffrage is the one source of power. The legislative power, indeed the control of the executive also, belongs to a Parliament composed of two Chambers—the Chamber of Deputies, elected for four years, by a direct suffrage; and the Senate, the outcome of a double suffrage, elected for nine years and eligible for re-election for periods of three. The executive power belongs to the President, elected for seven years by the National Assembly. It is he who chooses the ministers, according to the indications of the Parliament. The ministers form a Cabinet, jointly and severally responsible, presided over by a President of Council.

As regards administration, the French Republic has preserved, at least in their outlines, the institutions fashioned by Napoleon. This administration includes a Central Department for the initiation of plans, and agents on the spot to carry them out. There is a minister at the head of each department (Public Works, Justice, Finance, Public Instruction, Foreign Affairs, War, etc.). The civil servants in each department are of two kinds, executive agents spread over the whole country, and members of "bureaux," who are in immediate contact with the ministers, and who are permanent, thus ensuring the continuity of administrative action.

In a concluding chapter, under the heading of "Public Rights," the author has expressed his own views in regard to the freedom of the press, the freedom of assembly, the freedom of association, free education, and freedom of religion, under the French Government.

Any French or foreign reader desirous of becoming acquainted with French politics might certainly consider Joseph Barthelemy's book as a standard work and a sure guide for further investigations and studies. We would, however, warn him that the author has failed to take into account the powerful influence exercised in France by freemasonry, and we would insist that no one can form a correct idea of the working of the French government who remains unacquainted with the organisation and doings of secret societies in the past fifty years.

R. J. F.

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The French Revolution (1789-1815). By SHAILER MATHEWS, Longmans,

MR. SHAILER MATHEWS, a Professor in the University of Chicago, published in 1900 "The French Revolution—a Sketch," in which he treated the Revolution as closing with the appointment of the Directory. In the present book, which is the latest and best of the numerous works on the Revolution, he carries his study up to the last point in the fall of the Empire of the French. Including the career of Napoleon as an integral part of that great period of social change which we call the French Revolution, he yet excludes many interesting biographical details, as well as the usual full descriptions of Napoleon's military campaigns. "The unit of interest is not an individual, but the group action—the social change from which Napoleon sprang, which he exploited, and to which he finally succumbed." In short he has attempted to treat the Napoleonic period as a phase of the history of the Revolution.

Another change is in the "disproportionately extended treatment of the pre-revolutionary conditions of France." For "the change in national spirit and attitude which made the Old Régime impossible and compelled Louis to summon the States General is by far the most important element in the Revolution. To understand the conditions which were out-grown, the origin and growth of the revolutionary spirit, its extension into Europe, and its check by forces of re-action is one unbroken task." Any student of European history will find these chapters valuable, especially the first six of them. There is a clear and comprehensive analysis of (1) the absolute monarchy, (2) economic inequality, (3) inequalities of privilege, (4) the morals of the Old Régime, (5) the clergy and religion, (6) the disintegration of authority by philosophy.

There are other features worth noting in this book. It throws light

on the present epoch, which is in some respects similar to that which followed as well as that which preceded the French Revolution. "The succession of events in Russia from the abdication of the Czar to the triumph of the Bolsheviks should be compared with the development in France in 1789-92 . . . The Russian Revolution in nothing more parallels the French than in this homicidal tendency (the September massacres of 1792). But its tragedy is vastly greater . . . The Russian Revolutionists adopted similar economic methods with even more serious results. . . . The absolutism of the proletariat followed the absolutism of the Czar. Tyranny is succeeded by Tyranny." Again, "it is interesting to compare this (Muscadin) movement with that of the Fascisti in Italy in 1921." Again, "as compared with the depreciation of German and Austrian money, depreciation of assignats is very small indeed."

The chapter on the Reign of Terror "as a political experiment" is fascinating. It was not a "carnival of brute passion" but a search for "an ideal state." There is a brilliant sketch of the Fall of the Empire. It takes us along the mysterious path of the Revolutionary Spirit in the Napoleonic era. "Never was there such a dramatic reversal of attitudes. France (under Napoleon) became the 'oppressor,' Prussia and other German States the champions of 'liberty.'" The last chapter summarises the effects of the Revolution in Europe.

K. N. V.

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First Principles of Political Economy. By CHARLES GIDE. Translated by ERNEST F. ROW, B.Sc. (ECON.), L.C.P. Harrap & Co.

CHARLES GIDE is a familiar name to students of Economics. The book under review is an excellent primer—an introduction to the first principles of Economics, written in a clear, simple and pleasant manner. The book reads like a pleasant story. Beginners in Economics are introduced to its fundamental principles without being made aware for a moment that they are being taught Economics—a subject which is generally dreaded for its "dry uninteresting matter." If more text-books could be had of the same type as this the subject would become a pure delight to all students.

The writer takes care to avoid all formal definitions and discussions in technical terms which generally repel students from the subject, but only "gives a few sketches of primitive sociological ideas in their origin and development, showing how they have gradually taken shape in the minds of men and have been worked out in their institutions." He takes a good number of examples from "natural history, anthropology and from the ordinary life of man in all stages," and illustrates the fact that

Economics gives only clearer and systematised ideas of what men do and how they conduct themselves in ordinary business life and how the economic institutions have grown gradually with the advancing civilisation from the simple to the complex. Beginning with the simple wants and the efforts of animals and savages, he traces very interestingly, with illuminating observations, the gradual developments in the economic evolution of man to the present day problems of capitalistic organisation, socialism, co-operation, etc.

The book can be recommended without hesitation to all beginners in Economics. It will be a very suitable primer for our high school students, Economics being one of their optional subjects.

U. A.

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An Elementary Course in Analytical Geometry. By REV. B. C. MOLONY, O.B.E., M.A. G. Bell & Sons. 3s, 6d.

MESSRS. BELL have added yet another little book on Analytical Geometry and this time it is intended to appeal specially to "boys taking the Army examinations," while it may suit also those taking "an advanced course." To that end the author, the Rev. B. C. Molony, O.B.E., M.A., has included two or three chapters on curve tracing, and curves of higher degree than the second, with even an explanation of Newton's diagram of squares, but strangely enough, with hardly a word on "multiple points." Again, the author has "assumed a knowledge of elementary calculus" confiding to us that "no apology is needed for this assumption now-a-days." It may however be remarked that the now-a-days pedagogue instead of teaching the adepts of the calculus elements of Analytical Geometry only later on, seeks to utilise the opportunities of the latter to give some fundamental ideas of the limit of incrementary ratio, of the gradient, etc. To begin on page 2 with the argument that "since for a straight line the gradient is constant, its equation is obtained by integrating the differential equation," or to obtain the tangent to a parabola without any reference to the chord, is to make a precedent which is neither sanctioned by past experience nor necessitated by present requirements. In plain language, to freely use the calculus for teaching the elements of Analytical Geometry, means the avoidance of the difficulties of teaching the latter subject, and it is well and logical to bear in mind that while teaching Analytical Geometry the student should receive only unconscious doses of the calculus.

Turning otherways, the author's "I cannot hope that the answers to the examples are free from error" does not appear to be merely a formal expression of modesty. The present reviewer had to set a question paper,

and selected Test 7, Qn. 2, (p. 53); P. 142, Qn. 7; and P. 165, Qn. 20 and by the merest chance every one of the answers was wrong! While it is hoped that these are the only three mistakes in the book, apart from the warning to the student, the examiner is to be warned against casually selecting examples from anywhere and setting them.

The book contains only 167 pages but there are no fewer than 750 exercises, or on the average 9 to a couple of pages; evidently implying that the student is better self-taught than taught through the book. There are 60 diagrams in this small book, but their sizes, particularly those of the latter ones (e.g. fig. 47), are unattractively small, if not even injurious to the eye.

K. B. M.

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An Introduction to the Calculus. By V. M. GAITONDE, M.A., F.R.A.S., Professor of Mathematics, Gujarat College, Ahmedabad. Published by the author. Rs. 3-12-0.

For a proper application of the Calculus the student should have a clear grasp of its fundamental problem, namely that of the limit of the incremental ratio. This would lead, in Geometry, to the conception of the gradient; in Mechanics, to that of velocity; and in general analysis, to problems of approximations on the one hand, and of turning points on the other. The author of the present book has apparently kept this in constant view in his lecture notes, for out of this he says, his little book has arisen. For precision and perspicuity of development, even for rigour of analysis, the young intermediate student, for whom this admirable book has been specially written, will find in it a reliable and paying guide.

One misses in the book the treatment of curves, both of drawing and of their differential and integral properties, and though the author's excuse may be the limits of the intermediate syllabus, their inclusion would not only have enhanced the orthodox rating of the book, but if the author would not mind a bit of commercial confidence, would also have increased his clientele of Indian purchasers from the B.A. classes. Likewise, his treatment of the standard forms of integration is admirable and most useful even for a private student, yet the omission of rectification of curves, centres of gravity, etc., must be mentioned. Other recommendations of the book are its "list of formulæ" and its large "collection of exercises," in the latter of which, however, it is no plagiarism for authors to copy from common sources, and perhaps also not to acknowledge even special examples taken from recent examination papers of sister universities (see. Ex. 43, p. 208). The book, remarkably well

got up and low priced for an Indian mathematical publication, is bound, because of its great merits, of inclusion and perhaps of omission also, to merit the whole-hearted approval of Indian teachers and through them their students.

K. B. M.

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A Shorter School Geometry. Part II, By HALL & STEVENS, 2s. 6d.

THIS completes the '*Shorter School Geometry*' planned by the authors and the two parts taken together satisfy the demands of an ordinary school course. Readers who wish to prosecute their studies beyond the school course will find useful supplemental matter in the authors' '*School Geometry*,' Parts V and VI.

M. T. N.

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The Union. Published by the University Union, Mysore.

THE first issue of *The Union* does great credit to the editor, Mr. S. V. Ranganna, and to the other members of the Union who have helped him in the editing. The magazine is most attractive, from the excellent photograph of the Union Building on the cover to the three pages of jokes at the end. Poems, stories, articles, accounts of college and Union doings,—these, with an excellent editorial, are the English contents of the magazine, and there are also two short contributions in Kannada. The blending of grave and gay seems to us to be just right, and both types of contribution are able and original. There is only one little suggestion of improvement that we would make—that contributors should always remember they are university men. Jocularity is the life of a college magazine, but it should be a young man's jocularity, whereas it must be confessed that many of the jokes, in this issue and many little touches in the contributions, smack rather of the junior school than of the University Union. We urge all contributors to *The Union* to co-operate in the effort to get students thought of and talked of not as "boys" but as "men." But this is just a passing breath of criticism: the magazine is delightful.

Copies of *The Union* may be obtained from the Clerk, the University Union Office, Mysore City, at six annas each. A second number will soon be ready, and it is proposed to issue three numbers in 1925-26.

J. C. R.

COLLEGE NOTES.

Maharaja's College.

THE KANNADA ASSOCIATION.—At the preliminary meeting of the Sangha held on the 23rd of July 1924 under the presidency of Mr. B. Krishnappa, M.A., the accounts of Sangha for the last year were read and accepted.

The following office bearers were elected for the current year:—

<i>President</i>	.. Mr. B. M. Srikantiah, M.A., B.L.
<i>Vice-Presidents</i>	.. .. B. Krishnappa, M.A. Brahma Sri Pandit K. Varadachar.
<i>Secretary</i>	.. N. Anantharangachar.
<i>Class Representatives</i>	.. III. 1. N. S. Narayana Sastry. 2. M. Luxminarayana Sastry. II. 1. Kote Rama Rao. 2. B. S. Sanjeeva Setty. I. 1. K. Narayana Iyengar. 2. H. B. Nanjiah. 3. Y. M. Sreekantiah.

The following programme of papers and debates was drawn up:—

- (1) 6-8-24. "Kannada Literature." B. S. Venkata Ramiah.
- (2) 20-8-24. "How far is appreciative knowledge of literature needful to human beings." Y. M. Sreekantiah.
- (3) 27-8-24. "Service rendered to the Country is Service rendered to God." Kote Rama Rao.
- (4) 10-9-24. "The History of the World is nothing but the History of its Great Men." K. V. Puttappa.
- (5) 25-9-24. "The Similiarities and Dissimiliarities of Mahommadanism and Hinduism." T. M. Amir.
- (6) 22-10-24. "Ancient and Modern Systems of Education." Rama-krishna Rao.
- (7) 30-10-24. "The Place that Kannada ought to be given in our Educational Organisation." M. B. Shama Iyengar.
- (8) 12-11-24. "The Distinguishing Features of Oriental and Occidental Poetry." B. Rachappa.
- (9) 27-11-24. "The Kannada Dramas." T. N. Sreekantiah.
- (10) 10-12-24. "The Eastern Castes and Western Classes." H. B. Nanjiah.
- (11) 17-12-24. "The Vijayanagar Empire." N. Anantharangachar.

(12) *A debate.*—That in the opinion of this house “ Religious rites are essential for Salvation.” Mr. N. Sivaramasastry will move the proposition and Mr. T. M. Amir will oppose the motion. Messrs. T. N. Sreekanthiah and K. V. Puttappa will second the mover and the opposer respectively.

The following subjects held in reserve are intended to be taken up as occasion requires:—

1. The Poetic Beauty exhibited in Nagananda.
2. The heroes of India.

The first paper, by Mr. B. S. Venkataramiah, came off on 6th August 1924 under the presidency of Mr. B. M. Sreekanthiah, M.A., B.L. The reader had collected materials from several sources and his paper was long and elaborate. The President, after pointing out the progress that Telugu, Tamil and other sister literatures of India have been achieving, emphasised the great need for work on original lines in Kannada literature.

The second paper, by Mr. Y. M. Sreekanthiah, was read on 20th August with Brahma Sri Pandit K. Varadachar in the chair. The reader stated that of all the fine arts, literature was the most familiar and the easiest to understand for the generality of mankind and that it was the chief giver of happiness in this world. After the usual discussion by several members, the chairman brought the proceedings to a close, opining that an appreciative knowledge of literature affords great pleasure not only to the educated person but also to the illiterate as may be evidenced by the eager listening of village folk to the reading of such great works as the *Ramayana* and the *Mahabharata*.

Mr. Kote Rama Rao gave his paper on 27th August. Mr. M. S. Krishna Rao, B.A., B.I., Advocate, presided on the occasion. Brahma Sri Govindacharya Swami, B.A., B.E. graced the meeting with his presence. The paper was short but this was compensated for by the hearty discussion that took place subsequently. The Chairman emphasised the great need for mutual sympathy, unanimity, earnestness and co-ordination among the workers in any field for the improvement of their country.

As Mr. K. V. Puttappa was unwell, Mr. S. V. Raghavachar read his paper on “ The Heroes of India ” on 10th September, when Mr. B. Krishnappa, M.A., was the President. It was exceedingly interesting. Notes on subsequent meetings are deferred for lack of space to the next issue of the magazine.

The attendance of the members has been fairly satisfactory but the work of the Association will be rendered much more cheerful and attractive if many more members will try to attend regularly.

MYSORE,

20th September 1924.

N. ANANTHARANGACHAR,

Secretary.



THE SANSKRIT ASSOCIATION.—In the latter part of the year 1923-24, ten ordinary meetings were held. Papers on various subjects were read at nine of these meetings and at the remaining one a special debate on “The Samādhipāda of Patanjali” was held. The papers read were as follows:—

1. “Kāvya”	..	Mr. M. Rangaswami Iyengar
		(III B.A.)
2. “Comparative study of the nature of Sanskrit and English Dramas.”	..	„ C. Srinivasachar (II B.A.)
3. “The Physics of the Ancient Hindus.”	..	„ T. N. Krishna Iyengar (I B.A.)
4. “Bāna”	..	„ T. N. Sreekantiya (I B.A.)
5. “Kingship in Ancient India”	..	„ N. S. Hirannayya (II B.A.)
6. “Technical Literature in Sanskrit.”	..	„ C. Subba Rao (III B.A.)
7. “The Categories of Kanāda”	..	„ H. K. Keshava Murty (II B.A.)
8. “The Development of Prose in Sanskrit.”	..	„ H. Krishna Sastry (III B.A.)
9. “The Philosophy of the Bhagavadgītā.”	..	V. Sethu Rao, the Chief Clerk of the College.

Of these papers the last one requires special mention. A paper by Mr. Sethu Rao has become almost an annual feature of the Association’s work and we congratulate him on finding time for philosophical studies amidst his multifarious duties, and heartily thank him for his interest in our Association. The meetings were usually presided over by the members of the Sanskrit staff. But the Association was glad to have Professor S. V. Venkateswara Ayyar, as the Chairman for the paper on “Bāna.”

The General Meeting of the Association for the current year was held on the 26th August 1924, with Mr. M. Hiriyanna, M.A., L.T., the President of the Association, in the chair. The retiring Secretary, Mr. V. T. Tirunarayana Iyengar read his report for the past year (1923-24) and new office-bearers were appointed for 1924-25. Though we began our work rather late we have been able to hold seven ordinary meetings up till now.

The special feature of this year’s work is the “studies” we have had of the individual works of reputed authors. Of course, we began with Kalidasa. On the 9th September 1924, Mr. V. Anantachari (III Year B.A.) delivered an enthusiastic lecture on Kalidasa’s *Meghadutam*. It was attended by the biggest audience we have so far had this year. Closely following it, there was a critical study of *Venisamharanatakam*

by Mr. H. V. Lakshminarasimha Jois (III Year B.A.) on the 22nd of the same month. Kalidasa's masterpiece, *Sakuntala*, was attractively dealt with by Mr. T. L. Ahobalacharya (II year B.A.) on the 25th of November, his paper bearing the striking title "The most celebrated drama of India's greatest poet." On the 14th January 1925, Mr. K. Raghavachar, B.A., (II Year M.A.) read a learned and informing paper: "Sriharsha's *Naishadhiya Charitram*: its value as literature." This lecture calls for special mention as its excellence was above the ordinary standard.

On the 4th November 1924 there was a slight departure from the routine of our business. Our Sanskrit Lecturer, Mr. C. R. Narasimha Sastri, M.A., addressed us on "Buddhist Ethical Poetry." The inspiring lecturer dealt chiefly with a very beautiful poem, the *Jatakamala* of Arya Sura, and the listeners were tempted by the excellent specimens quoted in the lecture to study the work themselves.

The meeting held on the 14th November was a philosophical one. Mr. D. Suryanarayana Iyer (III Year B.A.) lectured in an eloquent way on "The Conception of the Absolute in the Upanishads." This was one of the rare occasions when a non-sanskrit student has addressed our Association. We wish that some more non-sanskrit students would follow the example of Mr. Suryanarayana Iyer.

Lastly, we had an interesting paper on a general subject, "Sanskrit studies in the West," by Mr. B. S. Krishnaswami Iyengar (II Year B.A.) on the 16th December. The day was a remarkable one, for we had in the chair also a student, Mr. H. L. Hariyappa, B.A., (II Year M.A.). The members of the staff usually preside over our meetings, but on this occasion we revived an old practice of the Association, that of inviting the senior students of the college to preside.

This year we have introduced a new feature into the business of the ordinary meetings. According to the decision of the Executive Committee on the 18th September, the business of the day now commences with an "Invocation," a custom so appropriate to a "Sanskrit" Association. We hope that this practice will continue in future also.

The only fact the committee have to complain about is that the attendance at the meetings is generally thin. We have no doubt had big audiences, but they are few and far between. We request our members through these columns, to take a more active part in the work of the Association, and to regard their duty towards *their* Association, almost as a *nityakarma*.

T. N. SREEKANTAIYA,
'Secretary.



THE HISTORICAL ASSOCIATION.—Owing to circumstances beyond the control of the office-bearers, the Association had to begin its work late in the year. We held four meetings for the period between October 1924 and January 1925:—

24-10-24 .. Prof. Venkateswara Ayyar lectured on “The Attempts at Karnataka Empire,” when Dr. Shama Shastry presided.

14-11-24 .. Mr. S. Srikanta Sastry, III B.A. read a paper on “The Historicity of Sivaganga,” when Dr. Venkata Subbiah presided.

2-12-24 .. Mr. R. Raghavachar, B.A., read a paper on “The Historical Background of Malavikagnimitra,” when Dr. Shama Shastry presided.

8-1-25 .. Mr. Gopalakrishna read a paper on “India and the Outer World in Early Times,” when Prof. Venkateswara Ayyar presided.

A business-meeting was held on the same day and the office-bearers for the next year were elected. The personnel now is as follows:—

Hon. President	.. Prof. N. S. Subba Rao.
President	.. Prof. S. V. Venkateswara Ayyar.
Vice-President	.. Mr. S. V. Krishnaswamy Iyengar.
Do	.. Mr. V. L. D'Souza.
Secretary	.. Mr. H. V. Venkata Subbiah.
Assistant Secretary	.. Mr. R. Seshagiri Rao, II B.A. and Treasurer.

Members of the Committee—

Messrs. Nanjunda Shastry, II M.A.

Sreepati Rao, I M.A.

H. S. Bhimasena Rao, III B.A.

Krishnaswamy Iyengar, II B.A.

Narayana Iyengar.

Five papers are now ready to be read during the months of January and February.

H. S. BHIMASENA RAO,
Secretary.

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THE MAHARAJA'S COLLEGE HOSTEL.—The hostel commenced work for this year in the month of July with 136 boarders. After a month, prefects were elected from amongst the boarders, one prefect being elected from each block. The prefects at a meeting chose one from among themselves, to be the Secretary of the hostel. The messes, which are four

in number, are worked on the dividing system. The prefects and the Secretary make the necessary purchases, conduct the several messes and undertake the general management of the hostel.

For the convenience of the boarders, the hostel maintains a library, a reading room, a gymnasium, a shaving saloon, and a sick-ward. The library is well-stocked and contains about 620 volumes. The reading room contains a few select Indian and Foreign periodicals, and these are in great demand. The gymnasium is very popular. The general health of the hostel has been good and there have not been any cases of serious illness.

Arrangements are being made to set up a laundry on the premises for the convenience of the boarders.

A unique feature of the hostel is the drill and running squad, which has been instituted by the President, Mr. J. C. Rollo, and which is under his personal command. At 6 o'clock every morning the boarders fall in for running and drill. Parades are held every Tuesday and Friday, at which the boarders are trained in infantry drill. Several students of the college and members of the staff also take part in the morning sprint. For purposes of efficient management the squad has been broken up into sections, each with a section commander, and a general commander has been put in charge of the whole squad. It is true that these parades are not so well attended as they might be, but thanks to the interest that the President and the Superintendent have been taking in the organisation, the running and drill squad bids fair to be a permanent institution in the hostel. (A prophecy unfulfilled. We shall try again next year, using this year's experience. But it is clear that a University corps officially formed and supported is the only organisation of this kind whose stability is assured.—*Editor.*)

In connection with the social activities of the hostel, mention has to be made of the annual social gathering and the Ganesha Mangalarathi celebrations. The annual social gathering was held on the 4th August to synchronise with the departure on leave of the President, Mr. N. S. Subba Rao and the taking over charge of the new President, Mr. J. C. Rollo. The Ganesha Mangalarathi was celebrated on the 14th September. Among the guests of the hostel on that occasion were the professors of the college, several prominent gentlemen of Mysore and other well-wishers of the hostel, including members of various educational institutions. Both the functions were very successful.

Second Term.

During the Dasara holidays, special arrangements were made for guests from various educational institutions, who came here in connection with the festivities and the various tournaments. We had nearly 200 guests during the Dasara week and realised a profit of nearly Rs. 300.

We had various diversions in the hostel, during the second term such as a Harikatha performance, an exhibition of acrobatic feats, demonstration of blind reading and counting, an address by Swami Shankarananda of the Punjab.

About the commencement of December, the Brahmin mess was divided into two sections for purposes of more efficient management. Towards the middle of the same month, a section of the boarders arranged a trip to Chunchanakatte, where they stayed two days.

We cannot close this brief note without mentioning the death of S. K. Srinivasan, who formed one of the party that went on the recent historical tour. He was one of the most popular students in the hostel and his tragic death is very much regretted by one and all. It has been arranged to conduct a Volley-Ball tournament in his memory, since that was the only game he used to play.

S. MUNI NANJAPPA,
Secretary.

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THE ROVER SCOUTS.—We have begun the New year's work with fresh vigour and in right earnest. Right glad are we to extend our cordial hand of brotherhood to the recruits from the first year class. We assembled on the 2nd of August to give a happy send-off to our beloved Honorary Scout-master Mr. N. S. Subba Rao and to receive Mr. J. C. Rollo in his place amidst hearty jais. Since then the Rover-mates are working very enthusiastically to train their teams in Rover scout craft. Some of the Rovers have taken an active part in collecting money for the 'Flood' Relief Fund. During the Scout-Ralley held recently in the City in aid of this Fund their services were acknowledged by the organising Scout Commissioner, and in the programme for the display they were conspicuous. As for the efficiency record we hope to send it flying high on the upgrades of the graph when you next hear of us.

T. M. AMIR,
Secretary.

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Maharani's College.

OUR hearty congratulations to the new lady graduates of the year—altogether five in number, of whom two are old students who appeared in private. Miss Gladys Arbuthnot stands out first and has deservedly won the Sri Lakshmidevamma Gold Medal and the Annapuramma prize.

Miss Indiramma and Sri Channamma deserve special credit for being the very first graduates in Mysore from among the so-called backward class communities. Our warm welcome and hearty good-wishes go to the old students who have come back to the College and new girls who have joined our University Entrance Class. The number is far from encouraging; but it has in no way diminished the zeal, the enthusiasm and the earnestness of the workers. If anything it has added to the sense of our responsibility which is sure to lead to still greater efforts and still better results. After all, difficulties are there only to be surmounted; conditions are bound to change and hopes never die and better things will surely follow. Our one business is to work. Such was the spirit which ushered in the new academical year 1924-25.

K. D. R.

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THIS year we have decided on a new order of things, and that is to form a College Union, which is to be responsible for the work that our many societies did last year. In connection with this Union lectures on various topics and also debates are arranged. Sri U. Abhayambal was appointed President of the Union by the College Council. (An account of the Union's activity for the whole year will appear in the March issue. Editor.)

Ambulance lectures are being given both in English and in Kannada under the auspices of the St. John Ambulance Association. Students attend them regularly and find them extremely interesting and useful. On the 19th of September Miss D. Stephen gave a most interesting and instructive lecture on "The Study of Books." The chair was taken by Miss Stevns, Professor in the Women's Christian College, Madras. This was indeed a unique occasion for us: we are eager to welcome professors from sister colleges. Many of the ladies of Mysore responded to our invitation to be present, and they highly appreciated the lecture.

Tennis is going on as usual, though the weather has interfered fairly often. It has been decided to have only one number of our College Magazine for the year, as financial support is very feeble: we hope to get our number out early in 1925.

H. S. H.

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Central College.

THE CENTRAL COLLEGE DRAMATIC SOCIETY continues to flourish. In September it gave a benefit performance in aid of the *Floods Relief Fund*

under the kind patronage of the Dewan. Later it stages two of Tagore's plays, *Malini* and *Sacrifice*, for the benefit of the funds of the College Karnataka Sangha. It has been organising debates and oratorical elocution and histrionic contests so as to develop the forensic abilities of our students. Mr. McAlpine, Mr. K. Sampathgiri Rao and Mr. Sell have promised to read papers before the end of the session.

F. R. S.

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THE KARNATAKA SANGHA.—The first meeting of the Sangha was held under the presidency of Mr. B. Nagesha Rao, M.A., when Mr. D. M. Sheshagiri Rao moved a proposition in Kannada “That Hindi should be the *Lingua Franca* for India.” There was a very lively discussion, the opposition being led by Mr. H. Ramakrishna Rao. The motion was put to the vote and carried.

“In the present educational curricula of our country the study of science should have a more prominent part than the study of literature” was the subject of a debate held at the next meeting of the Sangha. Mr. J. Darashaw opened the debate in English. A very strong case was made for literature by Mr. H. Bhaskara Rao. The house voted for literature. Mr. B. Venkateshachar, M.A., presided.

A lecture was given by Mr. R. A. Kulakarni, B.A., of the Karnatak College of Dharwar, the subject being “A Critical Survey of Kannada Literature.” Mr. T. S. Venkannaiya, M.A. occupied the chair.

The usual “Kannada Poetry Reading Competition” was also held. Messrs. A. N. Narasimhaiya, B.A., I.T., B. Nagesha Rao, M.A. and P. Sreenivasa Rao, B.Sc., officiated as judges and delivered judgment that Messrs. Y. G. Nanjundaiah and R. Krishnamurthy be awarded prizes.

A Literary Section for the study of Kannada literature has been opened by the Sangha this year. This section has become very popular and a number of students interested in Kannada literature have been attending the classes arranged by the section.

M. V. SEETHARAMIYA,
Secretary.

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THE SANSKRIT ASSOCIATION.—The general body of the association met on the 30th July 1924, and elected the office-bearers for the year 1924-25. Prof. B. Venkatesachar was elected President. Prof. C. R. Narayana Rao, Prof. M. T. Naranaiyengar, Mr. Venkannaiah,

Mr. Nagesa Rao and Mr. Chakravarty, Saralakavisury, were also elected Vice-Presidents. Mr. C. Jayapurnacharya was elected Secretary and Treasurer of the association. A committee of the representatives of the Sanskrit classes was formed to manage the work of the association.

Work was commenced on the 10th September with the reading of an interesting paper on Sanskrit Lyrics by Mr. M. P. Sreenivasa Rao, II B.A., when Prof. Venkatesachar presided. On the 21st October Mr. B. Seetharamasastry of II B.A. read a paper in Kannada on "A study of Sanskrit and English Drama," when Mr. Nagesa Rao presided. Mr. N. V. Raghunath, II B.A. read an excellent essay at the meeting held on the 31st October when Mr. Chakravarty, the Sanskrit Pundit, presided. The fourth gathering was on 18th November when Mr. C. Jayapurnachar of II B.A. delivered a lecture in Kannada on *Mangalacharana* referring to B.A. text books. Mr. Chakravarty presided on the occasion.

C. JAYAPURNACHARYA,
Secretary.

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THE CENTRAL COLLEGE SCIENCES' CLUB was started in the year 1910 with Mr. E. P. Metcalfe as its first President, with the object of stimulating the interest of the members in scientific method and independent work by means of lectures and demonstrations. That the Club has justified its existence is shown by its growing popularity among the present and past students of the College. It was concerned with the physical sciences, but in the year 1920-21 it metamorphosed itself into the *present* Sciences' Club accommodating the natural sciences also under its care. Year by year the membership has steadily increased and the student members are showing a good deal of interest in the activities of the club.

This year the session began early in September and at the time of writing altogether 7 meetings have been held. There are nearly 150 members on the roll. At the first business meeting held on the 27th July under the chairmanship of Professor C. R. Narayana Rao the following office bearers were elected :—

President	.. Mr. E. P. Metcalfe
Vice-Presidents	.., F. L. Usher
Do	.., M. T. Narayana Iyengar
Do	.., B. Venkatesa Char
Do	.., M. G. Sreenivasa Rao
Do	.. Dr. Sampathkumaran
Do	.. Mr. A. Venkata Rao Telang
Secretary	.., S. V. Krishnamurthi Rao

Treasurer .. Mr. George Mathan

Asst. Secretary .. M. S. Muthusawmy Iyer

The meeting terminated with a vote of thanks to the retiring President Prof. C. R. Narayana Rao, under whose guidance the club made considerable advance.

The inaugural address was delivered by Prof. J. K. Catterson Smith, Electro-Technology Department, Indian Institute of Science, on "Wireless Telegraphy." The other lectures were by Dr. Kunhi Kannan on "Science and Superstitions"; by Mr. B. N. Sreenivasaya, III B.Sc. on "Interference"; by Mr. M. G. Sreenivasa Rao on "The Treasures of Coal Tar"; by Dr. B. B. Day, of the Presidency College Madras, on "The present outlook in Chemistry."

For the first time in the history of the club a trip to an institution outside the College was undertaken. We visited the Indian Institute of Science, where by the kind courtesy of Prof. J. K. Catterson Smith we were enabled to follow the actual working of wireless telegraphy by means of his lucid explanation and interesting demonstrations.

S. V. KRISHNAMURTHI RAO,
Secretary.

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College of Engineering

It is long since I wrote last!

The most outstanding fact to record since January 1924 is the College Day, which came off towards the close of January. What with the sports and what with the arrangements of the College Day, the students and staff forgot their worries and routine for a few days and all co-operated so well that the function was a great success. Mr. C. S. Balasundaram Iyer, Inspector-General of Education, presided and gave very wholesome advice to the students in his usual genial way.

Next in importance to this is the University examination, which came soon after in March. This cast an air of seriousness all round, and every student seemed to be terribly busy with his books and getting his class record-work ready. This is the time of the greatest stress for all students, and the consequent strain as per Hook's Law makes them non-elastic and thus useless for months afterwards. How good it would be to have examinations piecemeal so as to avoid piling up the examination of subjects taught for two years in the course of a week or so. The results were fairly good, the Civil Section coming a little worse off owing to the greater diversity and range of the Civil subjects, though the performance on the whole was quite satisfactory.

The next important item is the College hostel. A college without

a hostel serves only a superficial purpose and is something like a body without a mind, because true education consists, in my opinion, not so much in imparting and widening knowledge but in cultivating relationship between students of different temperaments, castes and creeds. Perhaps in these days, looking to the inter-communal squabbles taking place in many parts of India, it is this latter aspect of education which requires to be most emphasized. But the present hostel of our College can accommodate not more than 15 per cent of the total number of students, and is therefore only partially useful. The present hostel building (still more the previous one) is infested with malarial parasites, and the boarders were therefore supplied with mosquito nets last year, —of course at the students' cost—which it will be seen is not a matter of luxury but a sheer necessity.

The next item I would mention, is the “inspection tours.” In case of a technical college like ours, the usefulness of tours can never be over-estimated. As the old adage goes, “A pound of practice is any day better than a ton of theory.” I could wish that in case of a technical college the students should be actually trained by taking them on outside inspections all the year round and by giving them whatever little theory is necessary on the work-spot as pertaining to the work. But I am reminded of this, that if wishes were horses—and so on. The number of tours, on the other hand, has been very recently cut down on account, of course, of that malady—a malady which seems to have come to stay—which is expressed briefly in two words “financial stringency.” The “Geddes Axe” has fallen very wrongly and heavily on this item of expenditure.

The item I would mention next is admission to the College. At one time, it was feared in some quarters that the College would have to be wound up on account of want of applicants for admission. The fears of those over-pessimistic people can now be said to be definitely falsified, for even though admission was given to about 60 students this year, more than double that number had to be refused. The College, though only half a dozen years old, attracted applicants from all parts of India, as far distant as Bengal and U. P. It was so sad to see a long file of disappointed applicants going away with long faces and knitted eyebrows on the admission day.

The last item—not however the least in importance—is the College sports. The creation of separate Physical Culture Committees for the two Colleges here, has given a fresh impetus to sports. The tennis courts are absolutely crowded, and hockey, football and cricket are also attracting the students in larger numbers. This is as it should be for a sound body is always the fosterer of a sound mind.

K. D. JOSHI.

